

ANNUAL GROUNDWATER EXTRACTION SYSTEM PERFORMANCE REPORT HELENA, MONTANA

Prepared For:

**CITY OF HELENA
HELENA, MONTANA**



Hydrometrics, Inc.
consulting scientists and engineers

NOVEMBER 2007

RECEIVED



NOV 20 2007

Dept. of Enviro. Quality
Waste & Underground
Tank Management Bureau



November 15, 2007

Mary Louise Hendrickson
Environmental Science Specialist
Montana Department of Environmental Quality
Solid Waste Regulatory Program
P.O. Box 200901
Helena, MT 59620-0901

Dear Mary Louise,

On behalf of the City of Helena, I am submitting the annual groundwater extraction system performance report for the City of Helena Landfill, plant ID 049 0014. The groundwater extraction system was installed in the spring of 2000 and is located just north of the landfill boundary. This treatment system includes three extraction wells (HL-99-1, HL-99-2, and HL-99-3) to intercept tetrachloroethene (PCE) impacted groundwater migrating downgradient of the landfill. The extracted groundwater is pumped through aeration nozzles into two lined ponds located on Bill Roberts Golf Course. In accordance with regulations, the treated water is sampled monthly to ensure the treatment goals have been met prior to land application on the golf course.

The groundwater extraction system operated May 15, 2007 through September 24, 2007 for a total of 130 days. Several tables showing all the data collected at the groundwater extraction system over the last year are included as Attachment A to this report. A summary of the operational data is shown in Table 1. With a combined average flow of 79.9 gpm from the three extraction wells, a total of 14.8 million gallons of groundwater were extracted and treated this year.

Table 1. Summary of Operational Data

Extraction Well	Days Operated	Average Flowrate (gpm)	Total Volume Removed (gal)
HL-99-1	126.0	23.4	4,244,994
HL-99-2	129.9	29.9	5,600,359
HL-99-3	129.8	26.6	4,973,492
Total	130	79.9	14,818,845

Groundwater samples are collected quarterly from each of the extraction wells. The field book notes, sampling forms and lab reports for this sampling were included in the March, June, and September data validation reports you have already received. Table 2 includes a summary of the sample results. Only those parameters that were detected in at least one extraction well during the March, June, or September 2007 sampling events were included. Assuming a conservative treatment level of 0.0005 mg/L for each compound and the total volume pumped for each well, the estimated mass of volatile organic compounds (VOCs) removed from each well was calculated. These values are also shown in Table 2.

Table 2. Extraction Well Sample Results and Mass of VOCs Removed

VOC	HL-99-1		HL-99-2		HL-99-3		Total	
	Average Conc. (mg/L)	Mass Removed (kg)	Average Conc. (mg/L)	Mass Removed (kg)	Average Conc. (mg/L)	Mass Removed (kg)	Average Conc. (mg/L)	Mass Removed (kg)
1,1-Dichloroethane	0.0007	0.0031	0.0022	0.0360	0.0034	0.0540	0.0021	0.0931
Chloroform	0.0037	0.0503	0.0022	0.0353	0.0027	0.0408	0.0029	0.1265
Cis-1,2-dichloroethane	0.0019	0.0218	<0.001	0.0000	0.0005	0.0000	0.0010	0.0218
Dichlorodifluoromethane	0.0008	0.0042	0.0017	0.0261	0.0021	0.0307	0.0015	0.0610
Methylene chloride	<0.001	0.0000	<0.001	0.0000	0.0009	0.0082	0.0006	0.0082
Tetrachloroethene	0.0032	0.0415	0.0049	0.0940	0.0069	0.1199	0.0050	0.2553
Trichloroethene	<0.001	0.0000	0.0009	0.0078	0.0014	0.0176	0.0009	0.0253
Total Mass Removed		0.12		0.20		0.27		0.59

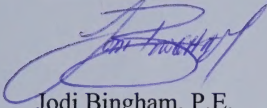
The sample results from the extraction wells indicate that the average PCE concentration being extracted from the system is 0.0050 mg/L. A total of 0.59 kg of VOC's were removed by the groundwater extraction system during the 2007 irrigation season.

During system operation, surface water samples were collected on a monthly basis from the east golf course pond and from the golf course sprinkler system. These water quality samples ensure that treatment goals are met. The field book notes, sampling forms and lab reports for each of these sampling events has been included as Attachment B to this report. A September sampling event was not completed since Golf Course personnel shut down the system without notifying Hydrometrics personnel. The results of these samples indicate that all VOCs were below the detection limit of 0.0005 mg/L prior to land application with the exception of bromodichloromethane and chloroform during the August sampling event. The source of the bromodichloromethane is unclear since none samples collected from the extraction wells during 2007 had a measurable concentration of bromodichloromethane. It is possible this constituent may be from other water sources the golf course utilizes for irrigation.

Mary Louise Hendrickson
November 15, 2007
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If you have any questions concerning this data or need any additional information to complete your files, please do not hesitate to call me at 443-4150, Ext. 172.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jodi Bingham", is written over a faint, circular blue stamp.

Jodi Bingham, P.E.
Environmental Engineer/Chemist

- c: John Rundquist, City of Helena Public Works Director
Ben Sautter, City of Helena Solid Waste Supervisor
Mike Wignot, Hydrometrics, Inc.

ATTACHMENT A

DATA COLLECTED AT THE
GROUNDWATER EXTRACTION SYSTEM

Operational Data:

Operational Data:							Hours Operated		Volume Extracted		Flowrate	
Date		Time	Hour Meter Reading	Totalizer 1 Reading	Totalizer 2 Reading	Flowmeter Reading	Calculated	Calculated	Calculated	Average	Calculated	
							from date	from hour meter	from Totalizer 2 Readings	Flowmeter and Hour Meter Readings	Flowmeter Reading	from Totalizer and Hour meter
	5/15/2007	12:10	0.0	0	0	17.5	0	0		17.5		
	5/30/2007	12:00	526.4	300,128	299,269	26.7						
		last period to date					359.8	526.4	299,269	843,293	26.7	
							359.8	526.4	299,269	843,293	9.5	
	6/18/2007	14:15	818.7	741,524	45,220	25.1						
		last period to date					458.3	292.3	745,951	440,204	25.1	
							818.1	818.7	1,045,220	1,232,962	21.3	
	7/10/2007	12:00 (est.)	1342.5	596,330	58,188	27.7						
		last period to date					525.8	523.8	1,012,968	870,556	27.7	
							1343.8	1342.5	2,058,188	2,231,235	32.2	
	9/14/2007	13:15	2787.4	no reading	no reading	20.0						
		last period to date					1585.3	1444.9		1,733,880	20.0	
							2929.1	2787.4		3,344,880	23.4	
	9/24/2007 (est.)	9:21 (est.)	3023.5	no reading	no reading	23.4 (est.)						
		last period to date					236.1	236.1		331,484	23.4	
							3165.2	3023.5		4,244,994	23.4	
Average/Total for 2007 Operating Season							3165.2	3023.5		4,244,994	23.4	

VOC Sample Data:

VOC	Cleanup Level	3/6/2007	6/18/2007	9/14/2007	Avg. Conc.	Total Mass
1,1-Dichloroethane	0.0005	0.0011	<0.001	<0.001	0.0007	0.0032
Chloroethane	0.0005	<0.001	<0.001	<0.001	0.0005	0.0000
Chloroform	0.0005	0.0041	0.0036	0.0035	0.0037	0.0520
Cis-1,2-dichloroethane	0.0005	0.0024	0.0016	0.0017	0.0019	0.0225
Dichlorodifluoromethane	0.0005	0.0013	<0.001	<0.001	0.0008	0.0043
Tetrachloroethene	0.0005	0.0035	0.003	0.003	0.0032	0.0428
Trichloroethene	0.0005	<0.001	<0.001	<0.001	0.0005	0.0000
Trichlorofluoromethane	0.0005	<0.001	<0.001	<0.001	0.0005	0.0000
Total						0.1248

[illegible]

VOC Sample Data:

VOC	Cleanup Level	6/18/2007				9/14/2007				Avg. Conc.	Total Mass
		3/6/2007	6/18/2007	9/14/2007	6/18/2007	3/6/2007	6/18/2007	9/14/2007	6/18/2007		
1,1-Dichloroethane	0.0005	0.0039	0.0013	0.0022	0.0005	0.0036					
Chloroethane	0.0005	<0.001	<0.001	<0.001	0.0005	0.0000					
Chloroform	0.0005	0.0028	0.0019	0.0018	0.0022	0.0353					
Cis-1,2-dichloroethane	0.0005	<0.001	<0.001	<0.001	0.0005	0.0000					
Dichlorodifluoromethane	0.0005	0.0037	0.001	<0.001	0.0017	0.0261					
Tetrachloroethene	0.0005	0.007	0.0039	0.0039	0.0049	0.0940					
Trichloroethene	0.0005	0.0016	<0.001	<0.001	0.0009	0.0078					
Trichlorofluoromethane	0.0005	<0.001	<0.001	<0.001	0.0005	0.0000					
Total							0.1993				

Operational Data:

		Hours Operated				Volume Extracted				Flowrate	
Date	Time	Hour Meter Reading	Totalizer 1 Reading	Totalizer 2 Reading	Flowmeter Reading	Calculated from date	Calculated from hour meter	Calculated from Totalizer 2 Readings	Calculated from Flowmeter and Hour Meter Readings	Average Flowmeter Reading	Calculated from Totalizer and Hour meter
5/15/2007	12:00	0.0	0	0	25.4	0	0			25.4	0
5/30/2007	12:00	526.4	712,729	712,438	25.5						
	last period to date					360.0	526.4	712,438	805,392	25.5	22.6
6/18/2007	14:15	818.3	166,782	166,492	26.2	360.0	526.4	712,438	805,392	25.5	22.6
	last period to date					458.3	291.9	454,054	458,867	26.2	25.9
7/10/2007	12:00 (est.)	1342.5	964,467	964,175	25.5	818.3	818.3	1,166,492	1,286,368	25.7	23.8
	last period to date					525.8	524.2	797,683	802,026	25.5	25.4
9/14/2007	9:20	2875.2	559,122	558,807	35.3	1344.0	1342.5	1,964,175	2,054,025	25.7	24.4
	last period to date					1581.3	1532.7	2,594,632	3,246,259	35.3	28.2
9/24/2007 (est.)	9:38 (est.)	3115.5	973,789	973,492	26.4 (est.)	2925.3	2875.2	4,558,807	6,089,674	27.6	26.4
	last period to date					240.3	240.3	414,685	381,010	26.4	28.8
						3165.6	3115.5	4,973,492	4,939,817	27.4	26.6
Average/Total for 2007 Operating Season						3165.6	3115.5	4,973,492	4,939,817	27.4	26.6

VOC Sample Data:

VOC	Cleanup Level	3/6/2007	6/18/2007	9/14/2007	Avg. Conc.	Total Mass
1,1-Dichloroethane	0.0005	0.004	0.0028	0.0033	0.0034	0.0540
Chloroethane	0.0005	<0.001	<0.001	<0.001	0.0005	0.0000
Chloroform	0.0005	0.003	0.0024	0.0026	0.0027	0.0408
Cis-1,2-dichloroethane	0.0005	<0.001	<0.001	<0.001	0.0005	0.0000
Dichlorodifluoromethane	0.0005	0.0025	0.0017	0.0022	0.0021	0.0307
Methylene chloride	0.0005	<0.001	0.0011	0.0012	0.0009	0.0082
Tetrachloroethene	0.0005	0.0084	0.0059	0.0063	0.0069	0.1199
Trichloroethene	0.0005	0.0016	0.0013	0.0014	0.0014	0.0176
Trichlorofluoromethane	0.0005	<0.001	<0.001	<0.001	0.0005	0.0000
Total						0.2711

ATTACHMENT B

**FIELD BOOK NOTES,
SAMPLING FORMS AND LAB REPORTS**

<u>Site</u>	<u>Code#</u>	<u>Date</u>	<u>Time</u>	<u>Bottles/Prcs/Analys's</u>
-------------	--------------	-------------	-------------	------------------------------

0705-

100

CLFL-1

0705-

101

04:15

Comments

Sampled from Pond where Valve box enters pond.

Sampled from Sprinkler 30 w of Building.

Weather

Calm, Clear, 65°

Readings

	tr	Flaw	Totalizer
99-3	5264	25.5	1) 712724 2) 712438
99-2	5264	0.0	1) 764931 2) 764665
99-1	5264	26.7	1) 300128 2) 299269

ANALYTICAL SUMMARY REPORT

June 13, 2007

Hydrometrics Inc
3020 Bozeman Ave.
Helena, MT 59601

Workorder No.: H07050336

Project Name: 1273 City of Helena

Energy Laboratories Inc received the following 2 samples from Hydrometrics Inc on 5/30/2007 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H07050336-001	CHHL-0705-100	05/30/07 9:00	05/30/07	Aqueous	8260-Volatile Organic Comp, 40 CFR Part 258 App I
H07050336-002	CHHL-0705-101	05/30/07 9:15	05/30/07	Aqueous	Same As Above

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005
eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002
eli-f - Energy Laboratories, Inc. - Idaho Falls, ID, EPA # ID00942
eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006
eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945
eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012
eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

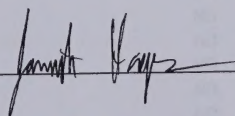
SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Report Approved By: 

LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena
Lab ID: H07050336-001
Client Sample ID: CHHL-0705-100

Report Date: 06/13/07
Collection Date: 05/30/07 09:00
Date Received: 05/30/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	06/10/07 01:58 / eli-b
Acrylonitrile	ND	ug/L		20		SW8260B	06/10/07 01:58 / eli-b
Benzene	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
Bromochloromethane	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
Bromodichloromethane	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
Bromoform	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
Bromomethane	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
Carbon disulfide	ND	ug/L		1.0		SW8260B	06/10/07 01:58 / eli-b
Carbon tetrachloride	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
Chlorobenzene	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
Chlorodibromomethane	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
Chloroethane	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
Chloroform	0.24	ug/L	J	0.50		SW8260B	06/10/07 01:58 / eli-b
Chloromethane	ND	ug/L		1.0		SW8260B	06/10/07 01:58 / eli-b
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	06/10/07 01:58 / eli-b
1,2-Dibromoethane	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
Dibromomethane	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
1,2-Dichlorobenzene	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
1,4-Dichlorobenzene	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
trans-1,4-Dichloro-2-butene	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	06/10/07 01:58 / eli-b
1,1-Dichloroethane	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
1,2-Dichloroethane	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
1,1-Dichloroethene	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
cis-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
trans-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
1,2-Dichloropropane	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
cis-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
trans-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
Ethylbenzene	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
2-Hexanone	ND	ug/L		20		SW8260B	06/10/07 01:58 / eli-b
Iodomethane	ND	ug/L		1.0		SW8260B	06/10/07 01:58 / eli-b
Methyl ethyl ketone	ND	ug/L		20		SW8260B	06/10/07 01:58 / eli-b
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	06/10/07 01:58 / eli-b
Methylene chloride	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
Styrene	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
Tetrachloroethene	0.37	ug/L	J	0.50		SW8260B	06/10/07 01:58 / eli-b
Toluene	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
1,1,1-Trichloroethane	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
1,1,2-Trichloroethane	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

J - Estimated value. The analyte was present but less than the reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena
Lab ID: H07050336-001
Client Sample ID: CHHL-0705-100

Report Date: 06/13/07
Collection Date: 05/30/07 09:00
DateReceived: 05/30/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Trichloroethene	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
Trichlorofluoromethane	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
1,2,3-Trichloropropane	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
Vinyl acetate	ND	ug/L		1.0		SW8260B	06/10/07 01:58 / eli-b
Vinyl chloride	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
m+p-Xylenes	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
o-Xylene	ND	ug/L		0.50		SW8260B	06/10/07 01:58 / eli-b
Surr: 1,2-Dichloroethane-d4	95.0	%REC			70-130	SW8260B	06/10/07 01:58 / eli-b
Surr: Dibromofluoromethane	101	%REC			77-126	SW8260B	06/10/07 01:58 / eli-b
Surr: p-Bromofluorobenzene	110	%REC			76-127	SW8260B	06/10/07 01:58 / eli-b
Surr: Toluene-d8	103	%REC			79-122	SW8260B	06/10/07 01:58 / eli-b

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena
Lab ID: H07050336-002
Client Sample ID: CHHL-0705-101

Report Date: 06/13/07
Collection Date: 05/30/07 09:15
Date Received: 05/30/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	06/10/07 02:40 / eli-b
Acrylonitrile	ND	ug/L		20		SW8260B	06/10/07 02:40 / eli-b
Benzene	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
Bromochloromethane	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
Bromodichloromethane	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
Bromoform	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
Bromomethane	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
Carbon disulfide	ND	ug/L		1.0		SW8260B	06/10/07 02:40 / eli-b
Carbon tetrachloride	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
Chlorobenzene	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
Chlorodibromomethane	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
Chloroethane	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
Chloroform	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
Chloromethane	ND	ug/L		1.0		SW8260B	06/10/07 02:40 / eli-b
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	06/10/07 02:40 / eli-b
1,2-Dibromoethane	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
Dibromomethane	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
1,2-Dichlorobenzene	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
1,4-Dichlorobenzene	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
trans-1,4-Dichloro-2-butene	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	06/10/07 02:40 / eli-b
1,1-Dichloroethane	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
1,2-Dichloroethane	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
1,1-Dichloroethene	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
cis-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
trans-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
1,2-Dichloropropane	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
cis-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
trans-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
Ethylbenzene	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
2-Hexanone	ND	ug/L		20		SW8260B	06/10/07 02:40 / eli-b
Iodomethane	ND	ug/L		1.0		SW8260B	06/10/07 02:40 / eli-b
Methyl ethyl ketone	ND	ug/L		20		SW8260B	06/10/07 02:40 / eli-b
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	06/10/07 02:40 / eli-b
Methylene chloride	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
Styrene	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
Tetrachloroethene	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
Toluene	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
1,1,1-Trichloroethane	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
1,1,2-Trichloroethane	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena
Lab ID: H07050336-002
Client Sample ID: CHHL-0705-101

Report Date: 06/13/07
Collection Date: 05/30/07 09:15
DateReceived: 05/30/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Trichloroethene	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
Trichlorofluoromethane	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
1,2,3-Trichloropropane	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
Vinyl acetate	ND	ug/L		1.0		SW8260B	06/10/07 02:40 / eli-b
Vinyl chloride	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
m+p-Xylenes	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
o-Xylene	ND	ug/L		0.50		SW8260B	06/10/07 02:40 / eli-b
Surr: 1,2-Dichloroethane-d4	96.0	%REC			70-130	SW8260B	06/10/07 02:40 / eli-b
Surr: Dibromofluoromethane	100	%REC			77-126	SW8260B	06/10/07 02:40 / eli-b
Surr: p-Bromofluorobenzene	106	%REC			76-127	SW8260B	06/10/07 02:40 / eli-b
Surr: Toluene-d8	100	%REC			79-122	SW8260B	06/10/07 02:40 / eli-b

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/13/07
Work Order: H07050336

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: B_R94885		
Sample ID: Ics060907	Laboratory Control Sample				Run: SUB-B94885		06/09/07 12:16		
trans-1,4-Dichloro-2-butene	4.92	ug/L	1.0	98	50	142			
Acetone	29.4	ug/L	20	59	62	130			S
Acrylonitrile	41.2	ug/L	20	82	60	130			
Benzene	4.80	ug/L	1.0	96	71	133			
Bromochloromethane	4.44	ug/L	1.0	89	68	131			
Bromodichloromethane	4.32	ug/L	1.0	86	67	138			
Bromoform	4.72	ug/L	1.0	94	64	136			
Bromomethane	5.44	ug/L	1.0	109	60	138			
Carbon disulfide	4.08	ug/L	1.0	82	46	145			
Carbon tetrachloride	4.52	ug/L	1.0	90	61	144			
Chlorobenzene	4.80	ug/L	1.0	96	78	136			
Chlorodibromomethane	4.72	ug/L	1.0	94	72	136			
Chloroethane	4.72	ug/L	1.0	94	64	136			
Chloroform	4.44	ug/L	1.0	89	69	133			
Chloromethane	5.12	ug/L	1.0	102	63	149			
1,2-Dibromo-3-chloropropane	4.76	ug/L	1.0	95	63	125			
1,2-Dibromoethane	4.76	ug/L	1.0	95	75	131			
Dibromomethane	4.56	ug/L	1.0	91	72	133			
1,2-Dichlorobenzene	4.72	ug/L	1.0	94	78	129			
1,4-Dichlorobenzene	4.72	ug/L	1.0	94	78	131			
Dichlorodifluoromethane	6.76	ug/L	1.0	135	55	141			
1,1-Dichloroethane	4.56	ug/L	1.0	91	72	130			
1,2-Dichloroethane	4.64	ug/L	1.0	93	57	146			
1,1-Dichloroethene	4.44	ug/L	1.0	89	66	142			
cis-1,2-Dichloroethene	4.44	ug/L	1.0	89	74	133			
trans-1,2-Dichloroethene	4.60	ug/L	1.0	92	76	138			
1,2-Dichloropropane	4.68	ug/L	1.0	94	72	135			
cis-1,3-Dichloropropene	4.88	ug/L	1.0	98	75	132			
trans-1,3-Dichloropropene	5.08	ug/L	1.0	102	77	145			
Ethylbenzene	4.88	ug/L	1.0	98	78	131			
2-Hexanone	39.3	ug/L	20	79	72	131			
Iodomethane	5.20	ug/L	1.0	104	66	132			
Methyl ethyl ketone	36.1	ug/L	20	72	55	145			
Methyl isobutyl ketone	40.0	ug/L	20	80	73	129			
Methylene chloride	4.12	ug/L	1.0	82	73	126			
Styrene	4.80	ug/L	1.0	96	76	134			
1,1,1,2-Tetrachloroethane	4.88	ug/L	1.0	98	75	135			
1,1,2,2-Tetrachloroethane	4.68	ug/L	1.0	94	72	132			
Tetrachloroethene	4.96	ug/L	1.0	99	78	137			
Toluene	4.84	ug/L	1.0	97	78	134			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/13/07
Work Order: H07050336

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: B_R94885		
Sample ID: Ics060907	Laboratory Control Sample			Run: SUB-B94885			06/09/07 12:16		
1,1,1-Trichloroethane	4.52	ug/L	1.0	90	64	141			
1,1,2-Trichloroethane	4.76	ug/L	1.0	95	72	133			
Trichloroethene	4.88	ug/L	1.0	98	75	138			
Trichlorofluoromethane	4.92	ug/L	1.0	98	58	139			
1,2,3-Trichloropropane	4.40	ug/L	1.0	88	67	133			
Vinyl acetate	4.32	ug/L	1.0	86	31	124			
Vinyl chloride	5.36	ug/L	1.0	107	66	140			
m+p-Xylenes	9.76	ug/L	1.0	98	78	133			
o-Xylene	4.96	ug/L	1.0	99	79	136			
Surr: 1,2-Dichloroethane-d4			1.0	96	70	130			
Surr: Dibromofluoromethane			1.0	101	77	126			
Surr: p-Bromofluorobenzene			1.0	105	76	127			
Surr: Toluene-d8			1.0	106	79	122			
Sample ID: B07060174-001Fms	Sample Matrix Spike			Run: SUB-B94885			06/10/07 10:13		
trans-1,4-Dichloro-2-butene	10.2	ug/L	2.0	102	50	142			
Acetone	67.9	ug/L	40	68	62	130			
Acrylonitrile	82.4	ug/L	40	82	60	130			
Benzene	10.3	ug/L	2.0	103	71	133			
Bromochloromethane	9.12	ug/L	2.0	91	68	131			
Bromodichloromethane	8.96	ug/L	2.0	90	67	138			
Bromoform	8.96	ug/L	2.0	90	64	136			
Bromomethane	9.84	ug/L	2.0	98	60	138			
Carbon disulfide	8.24	ug/L	2.0	82	46	145			
Carbon tetrachloride	9.68	ug/L	2.0	97	61	144			
Chlorobenzene	10.1	ug/L	2.0	101	78	136			
Chlorodibromomethane	9.12	ug/L	2.0	91	72	136			
Chloroethane	10.4	ug/L	2.0	104	64	136			
Chloroform	9.52	ug/L	2.0	95	69	133			
Chloromethane	10.2	ug/L	2.0	102	63	149			
1,2-Dibromo-3-chloropropane	8.24	ug/L	2.0	82	63	125			
1,2-Dibromoethane	9.28	ug/L	2.0	93	75	131			
Dibromomethane	9.20	ug/L	2.0	92	72	133			
1,2-Dichlorobenzene	9.76	ug/L	2.0	98	78	129			
1,4-Dichlorobenzene	10.0	ug/L	2.0	100	78	131			
Dichlorodifluoromethane	15.4	ug/L	2.0	154	55	141			S
1,1-Dichloroethane	9.84	ug/L	2.0	98	72	130			
1,2-Dichloroethane	9.44	ug/L	2.0	94	57	146			
1,1-Dichloroethene	9.52	ug/L	2.0	95	66	142			
cis-1,2-Dichloroethene	9.36	ug/L	2.0	94	74	133			
trans-1,2-Dichloroethene	9.84	ug/L	2.0	98	76	138			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/13/07
Work Order: H07050336

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: B_R94885		
Sample ID: B07060174-001Fms	Sample Matrix Spike		Run: SUB-B94885				06/10/07 10:13		
1,2-Dichloropropane	10.2	ug/L	2.0	102	72	135			
cis-1,3-Dichloropropene	10.1	ug/L	2.0	101	75	132			
trans-1,3-Dichloropropene	10.6	ug/L	2.0	106	77	145			
Ethylbenzene	10.6	ug/L	2.0	106	78	131			
2-Hexanone	69.5	ug/L	40	70	72	131			S
Iodomethane	11.0	ug/L	2.0	110	66	132			
Methyl ethyl ketone	67.0	ug/L	40	67	55	145			
Methyl isobutyl ketone	69.8	ug/L	40	70	73	129			S
Methylene chloride	8.80	ug/L	2.0	88	73	126			
Styrene	10.1	ug/L	2.0	101	76	134			
1,1,1,2-Tetrachloroethane	9.92	ug/L	2.0	99	75	135			
1,1,2,2-Tetrachloroethane	9.60	ug/L	2.0	96	72	132			
Tetrachloroethene	10.4	ug/L	2.0	104	78	137			
Toluene	10.4	ug/L	2.0	104	78	134			
1,1,1-Trichloroethane	9.52	ug/L	2.0	95	64	141			
1,1,2-Trichloroethane	9.36	ug/L	2.0	94	72	133			
Trichloroethene	10.4	ug/L	2.0	104	75	138			
Trichlorofluoromethane	10.9	ug/L	2.0	109	58	139			
1,2,3-Trichloropropane	8.80	ug/L	2.0	88	67	133			
Vinyl acetate	9.52	ug/L	2.0	95	31	124			
Vinyl chloride	11.4	ug/L	2.0	114	66	140			
m+p-Xylenes	21.1	ug/L	2.0	106	78	133			
o-Xylene	10.5	ug/L	2.0	105	79	136			
Surr: 1,2-Dichloroethane-d4			2.0	96	70	130			
Surr: Dibromofluoromethane			2.0	98	77	126			
Surr: p-Bromofluorobenzene			2.0	106	76	127			
Surr: Toluene-d8			2.0	103	79	122			
Sample ID: B07060174-001Fmsd	Sample Matrix Spike Duplicate		Run: SUB-B94885				06/10/07 10:51		
trans-1,4-Dichloro-2-butene	8.64	ug/L	2.0	86	50	142	17	20	
Acetone	80.8	ug/L	40	81	62	130	17	20	
Acrylonitrile	77.3	ug/L	40	77	60	130	6.4	20	
Benzene	10.6	ug/L	2.0	106	71	133	3.1	20	
Bromochloromethane	9.36	ug/L	2.0	94	68	131	2.6	20	
Bromodichloromethane	9.04	ug/L	2.0	90	67	138	0.9	20	
Bromoform	9.60	ug/L	2.0	96	64	136	6.9	20	
Bromomethane	11.3	ug/L	2.0	113	60	138	14	20	
Carbon disulfide	7.70	ug/L	2.0	77	46	145	6.7	20	
Carbon tetrachloride	10.0	ug/L	2.0	100	61	144	3.3	20	
Chlorobenzene	10.5	ug/L	2.0	105	78	136	3.9	20	
Chlorodibromomethane	9.60	ug/L	2.0	96	72	136	5.1	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/13/07
Work Order: H07050336

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: B_R94885		
Sample ID: B07060174-001Fmsd	Sample Matrix Spike Duplicate			Run: SUB-B94885				06/10/07 10:51	
Chloroethane	10.2	ug/L	2.0	102	64	136	1.6	20	
Chloroform	9.84	ug/L	2.0	98	69	133	3.3	20	
Chloromethane	10.7	ug/L	2.0	107	63	149	5.4	20	
1,2-Dibromo-3-chloropropane	9.44	ug/L	2.0	94	63	125	14	20	
1,2-Dibromoethane	9.76	ug/L	2.0	98	75	131	5.0	20	
Dibromomethane	9.68	ug/L	2.0	97	72	133	5.1	20	
1,2-Dichlorobenzene	10.2	ug/L	2.0	102	78	129	4.8	20	
1,4-Dichlorobenzene	10.7	ug/L	2.0	107	78	131	6.9	20	
Dichlorodifluoromethane	14.7	ug/L	2.0	147	55	141	4.3	20	S
1,1-Dichloroethane	10.1	ug/L	2.0	101	72	130	2.4	20	
1,2-Dichloroethane	10.0	ug/L	2.0	100	57	146	5.8	20	
1,1-Dichloroethene	9.60	ug/L	2.0	96	66	142	0.8	20	
cis-1,2-Dichloroethene	9.68	ug/L	2.0	97	74	133	3.4	20	
trans-1,2-Dichloroethene	10.0	ug/L	2.0	100	76	138	1.6	20	
1,2-Dichloropropane	10.3	ug/L	2.0	103	72	135	1.6	20	
cis-1,3-Dichloropropene	10.6	ug/L	2.0	106	75	132	4.7	20	
trans-1,3-Dichloropropene	10.9	ug/L	2.0	109	77	145	3.0	20	
Ethylbenzene	10.9	ug/L	2.0	109	78	131	2.2	20	
2-Hexanone	86.4	ug/L	40	86	72	131	22	20	R
Iodomethane	10.0	ug/L	2.0	100	66	132	9.2	20	
Methyl ethyl ketone	82.4	ug/L	40	82	55	145	21	20	R
Methyl isobutyl ketone	80.8	ug/L	40	81	73	129	15	20	
Methylene chloride	9.20	ug/L	2.0	92	73	126	4.4	20	
Styrene	10.3	ug/L	2.0	103	76	134	2.4	20	
1,1,1,2-Tetrachloroethane	10.4	ug/L	2.0	104	75	135	4.7	20	
1,1,2,2-Tetrachloroethane	10.4	ug/L	2.0	104	72	132	8.0	20	
Tetrachloroethene	10.6	ug/L	2.0	106	78	137	2.3	20	
Toluene	10.4	ug/L	2.0	104	78	134	0.0	20	
1,1,1-Trichloroethane	9.92	ug/L	2.0	99	64	141	4.1	20	
1,1,2-Trichloroethane	9.92	ug/L	2.0	99	72	133	5.8	20	
Trichloroethene	10.6	ug/L	2.0	106	75	138	2.3	20	
Trichlorofluoromethane	10.6	ug/L	2.0	106	58	139	3.0	20	
1,2,3-Trichloropropane	9.28	ug/L	2.0	93	67	133	5.3	20	
Vinyl acetate	8.00	ug/L	2.0	80	31	124	17	20	
Vinyl chloride	11.0	ug/L	2.0	110	66	140	3.6	20	
m+p-Xylenes	21.4	ug/L	2.0	107	78	133	1.5	20	
o-Xylene	10.6	ug/L	2.0	106	79	136	1.5	20	
Surr: 1,2-Dichloroethane-d4			2.0	97	70	130			
Surr: Dibromofluoromethane			2.0	100	77	126			
Surr: p-Bromofluorobenzene			2.0	105	76	127			

Qualifiers:

RL - Analyte reporting limit.
R - RPD exceeds advisory limit.

ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/13/07
Work Order: H07050336

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: B_R94885		
Sample ID: B07060174-001Fmsd	Sample Matrix Spike Duplicate			Run: SUB-B94885			06/10/07 10:51		
Surr: Toluene-d8			2.0	104	79	122			
Sample ID: BLKA060907A	Method Blank			Run: SUB-B94885			06/10/07 01:20		
trans-1,4-Dichloro-2-butene	ND	ug/L	0.50						
Acetone	ND	ug/L	20						
Acrylonitrile	ND	ug/L	20						
Benzene	ND	ug/L	0.50						
Bromochloromethane	ND	ug/L	0.50						
Bromodichloromethane	ND	ug/L	0.50						
Bromoform	ND	ug/L	0.50						
Bromomethane	ND	ug/L	0.50						
Carbon disulfide	ND	ug/L	1.0						
Carbon tetrachloride	ND	ug/L	0.50						
Chlorobenzene	ND	ug/L	0.50						
Chlorodibromomethane	ND	ug/L	0.50						
Chloroethane	ND	ug/L	0.50						
Chloroform	ND	ug/L	0.50						
Chloromethane	ND	ug/L	1.0						
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0						
1,2-Dibromoethane	ND	ug/L	0.50						
Dibromomethane	ND	ug/L	0.50						
1,2-Dichlorobenzene	ND	ug/L	0.50						
1,4-Dichlorobenzene	ND	ug/L	0.50						
Dichlorodifluoromethane	ND	ug/L	1.0						
1,1-Dichloroethane	ND	ug/L	0.50						
1,2-Dichloroethane	ND	ug/L	0.50						
1,1-Dichloroethene	ND	ug/L	0.50						
cis-1,2-Dichloroethene	ND	ug/L	0.50						
trans-1,2-Dichloroethene	ND	ug/L	0.50						
1,2-Dichloropropane	ND	ug/L	0.50						
cis-1,3-Dichloropropene	ND	ug/L	0.50						
trans-1,3-Dichloropropene	ND	ug/L	0.50						
Ethylbenzene	ND	ug/L	0.50						
2-Hexanone	ND	ug/L	20						
Iodomethane	ND	ug/L	1.0						
Methyl ethyl ketone	ND	ug/L	20						
Methyl isobutyl ketone	ND	ug/L	20						
Methylene chloride	ND	ug/L	0.50						
Styrene	ND	ug/L	0.50						
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50						
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/13/07
Work Order: H07050336

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B			Batch: B_R94885						
Sample ID: BLKA060907A	Method Blank		Run: SUB-B94885			06/10/07 01:20			
Tetrachloroethene	ND	ug/L	0.50						
Toluene	ND	ug/L	0.50						
1,1,1-Trichloroethane	ND	ug/L	0.50						
1,1,2-Trichloroethane	ND	ug/L	0.50						
Trichloroethene	ND	ug/L	0.50						
Trichlorofluoromethane	ND	ug/L	0.50						
1,2,3-Trichloropropane	ND	ug/L	0.50						
Vinyl acetate	ND	ug/L	1.0						
Vinyl chloride	ND	ug/L	0.50						
m+p-Xylenes	ND	ug/L	0.50						
o-Xylene	ND	ug/L	0.50						
Surr: 1,2-Dichloroethane-d4			0.50	97	70	130			
Surr: Dibromofluoromethane			0.50	101	77	126			
Surr: p-Bromofluorobenzene			0.50	108	76	127			
Surr: Toluene-d8			0.50	102	79	122			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



CASE NARRATIVE

NONE



2727 Airport Road • Helena, Montana 59601 • (406) 443-4150

[illegible]

Energy Laboratories Inc

Workorder Receipt Checklist



H07050336

Hydrometrics Inc

Login completed by: Roxanne L. Tubbs

Date and Time Received: 5/30/2007 3:30 PM

Reviewed by: *LTB JTB*

Received by: rlt

Reviewed Date: *5/31/07 4/10/07*

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	4.5°C From Field
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☒

Contact and Corrective Action Comments:

None



2727 Airport Road • Helena, Montana 59601 • (406) 443-4150

HFORM-1-5/99

6/19/07

<u>Site</u>	<u>Code</u>	<u>Date</u>	<u>Time</u>	<u>Batches/Proc/Analysis</u>
Pand	CHHL- 0706- 100	6/19/07		2/40/AF/HCL/DOC
Sprinkler	CHHL- 0706- 101			

SAME AS Before

Weather
Calm, Clear, 65°

Readings

	<u>Flow</u>	<u>Hr</u>	<u>Total</u>
99-3	26.2	8182	1- 166782 2- 166492
99-2	32.1	8183	1- 865787 2- 864921
99-1	25.1	8187	1- 741524 2- 45219.9



ANALYTICAL SUMMARY REPORT

June 27, 2007

Hydrometrics Inc
3020 Bozeman Ave.
Helena, MT 59601

Workorder No.: H07060201

Project Name: 1273 City of Helena

Energy Laboratories Inc received the following 2 samples from Hydrometrics Inc on 6/19/2007 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H07060201-001	CHHL-0706-100	06/19/07 9:00	06/19/07	Aqueous	8260-Volatile Organic Comp, 40 CFR Part 258 App I
H07060201-002	CHHL-0706-101	06/19/07 9:10	06/19/07	Aqueous	Same As Above

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005
eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002
eli-f - Energy Laboratories, Inc. - Idaho Falls, ID, EPA # ID00942
eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006
eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945
eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012
eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Report Approved By: _____

CASE NARRATIVE

NONE



LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena
Lab ID: H07060201-001
Client Sample ID: CHHL-0706-100

Report Date: 06/26/07
Collection Date: 06/19/07 09:00
Date Received: 06/19/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	06/25/07 15:56 / jdh
Acrylonitrile	ND	ug/L		20		SW8260B	06/25/07 15:56 / jdh
Benzene	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
Bromochloromethane	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
Bromodichloromethane	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
Bromoform	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
Bromomethane	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
Carbon disulfide	ND	ug/L		1.0		SW8260B	06/25/07 15:56 / jdh
Carbon tetrachloride	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
Chlorobenzene	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
Chlorodibromomethane	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
Chloroethane	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
Chloroform	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
Chloromethane	ND	ug/L		1.0		SW8260B	06/25/07 15:56 / jdh
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	06/25/07 15:56 / jdh
1,2-Dibromoethane	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
Dibromomethane	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
1,2-Dichlorobenzene	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
1,4-Dichlorobenzene	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
trans-1,4-Dichloro-2-butene	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	06/25/07 15:56 / jdh
1,1-Dichloroethane	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
1,2-Dichloroethane	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
1,1-Dichloroethene	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
cis-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
trans-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
1,2-Dichloropropane	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
cis-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
trans-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
Ethylbenzene	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
2-Hexanone	ND	ug/L		20		SW8260B	06/25/07 15:56 / jdh
Iodomethane	ND	ug/L		1.0		SW8260B	06/25/07 15:56 / jdh
Methyl ethyl ketone	ND	ug/L		20		SW8260B	06/25/07 15:56 / jdh
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	06/25/07 15:56 / jdh
Methylene chloride	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
Styrene	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
Tetrachloroethene	0.30	ug/L	J	0.50		SW8260B	06/25/07 15:56 / jdh
Toluene	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
1,1,1-Trichloroethane	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
1,1,2-Trichloroethane	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

J - Estimated value. The analyte was present but less than the reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena
Lab ID: H07060201-001
Client Sample ID: CHHL-0706-100

Report Date: 06/26/07
Collection Date: 06/19/07 09:00
DateReceived: 06/19/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Trichloroethene	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
Trichlorofluoromethane	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
1,2,3-Trichloropropane	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
Vinyl acetate	ND	ug/L		1.0		SW8260B	06/25/07 15:56 / jdh
Vinyl chloride	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
m+p-Xylenes	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
o-Xylene	ND	ug/L		0.50		SW8260B	06/25/07 15:56 / jdh
Surr: 1,2-Dichloroethane-d4	94.0	%REC			70-130	SW8260B	06/25/07 15:56 / jdh
Surr: Dibromofluoromethane	96.0	%REC			70-130	SW8260B	06/25/07 15:56 / jdh
Surr: p-Bromofluorobenzene	110	%REC			70-130	SW8260B	06/25/07 15:56 / jdh
Surr: Toluene-d8	98.0	%REC			70-130	SW8260B	06/25/07 15:56 / jdh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena
Lab ID: H07060201-002
Client Sample ID: CHHL-0706-101

Report Date: 06/26/07
Collection Date: 06/19/07 09:10
Date Received: 06/19/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	06/25/07 16:25 / jdh
Acrylonitrile	ND	ug/L		20		SW8260B	06/25/07 16:25 / jdh
Benzene	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
Bromochloromethane	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
Bromodichloromethane	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
Bromoform	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
Bromomethane	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
Carbon disulfide	ND	ug/L		1.0		SW8260B	06/25/07 16:25 / jdh
Carbon tetrachloride	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
Chlorobenzene	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
Chlorodibromomethane	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
Chloroethane	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
Chloroform	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
Chloromethane	ND	ug/L		1.0		SW8260B	06/25/07 16:25 / jdh
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	06/25/07 16:25 / jdh
1,2-Dibromoethane	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
Dibromomethane	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
1,2-Dichlorobenzene	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
1,4-Dichlorobenzene	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
trans-1,4-Dichloro-2-butene	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	06/25/07 16:25 / jdh
1,1-Dichloroethane	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
1,2-Dichloroethane	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
1,1-Dichloroethene	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
cis-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
trans-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
1,2-Dichloropropane	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
cis-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
trans-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
Ethylbenzene	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
2-Hexanone	ND	ug/L		20		SW8260B	06/25/07 16:25 / jdh
Iodomethane	ND	ug/L		1.0		SW8260B	06/25/07 16:25 / jdh
Methyl ethyl ketone	ND	ug/L		20		SW8260B	06/25/07 16:25 / jdh
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	06/25/07 16:25 / jdh
Methylene chloride	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
Styrene	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
Tetrachloroethene	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
Toluene	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
1,1,1-Trichloroethane	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
1,1,2-Trichloroethane	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena
Lab ID: H07060201-002
Client Sample ID: CHHL-0706-101

Report Date: 06/26/07
Collection Date: 06/19/07 09:10
DateReceived: 06/19/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Trichloroethene	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
Trichlorofluoromethane	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
1,2,3-Trichloropropane	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
Vinyl acetate	ND	ug/L		1.0		SW8260B	06/25/07 16:25 / jdh
Vinyl chloride	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
m+p-Xylenes	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
o-Xylene	ND	ug/L		0.50		SW8260B	06/25/07 16:25 / jdh
Surr: 1,2-Dichloroethane-d4	94.0	%REC			70-130	SW8260B	06/25/07 16:25 / jdh
Surr: Dibromofluoromethane	99.0	%REC			70-130	SW8260B	06/25/07 16:25 / jdh
Surr: p-Bromofluorobenzene	103	%REC			70-130	SW8260B	06/25/07 16:25 / jdh
Surr: Toluene-d8	102	%REC			70-130	SW8260B	06/25/07 16:25 / jdh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/26/07
Work Order: H07060201

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Analytical Run: 1SATURN_070625A		
Sample ID: CCV062507A							Continuing Calibration Verification Standard		
							06/25/07 08:58		
Acetone	45.6	ug/L	20	91	70	130			
Acrylonitrile	48.0	ug/L	20	96	70	130			
Benzene	4.64	ug/L	1.0	93	70	130			
Bromochloromethane	4.72	ug/L	1.0	94	70	130			
Bromodichloromethane	4.64	ug/L	1.0	93	70	130			
Bromoform	4.68	ug/L	1.0	94	70	130			
Bromomethane	5.40	ug/L	1.0	108	70	130			
Carbon disulfide	4.32	ug/L	1.0	86	70	130			
Carbon tetrachloride	4.56	ug/L	1.0	91	70	130			
Chlorobenzene	4.48	ug/L	1.0	90	70	130			
Chlorodibromomethane	4.96	ug/L	1.0	99	70	130			
Chloroethane	4.44	ug/L	1.0	89	70	130			
Chloroform	4.44	ug/L	1.0	89	80	120			
Chloromethane	4.92	ug/L	1.0	98	70	130			
1,2-Dibromo-3-chloropropane	4.12	ug/L	1.0	82	70	130			
1,2-Dibromoethane	5.64	ug/L	1.0	113	70	130			
Dibromomethane	4.44	ug/L	1.0	89	70	130			
1,2-Dichlorobenzene	4.40	ug/L	1.0	88	70	130			
1,4-Dichlorobenzene	4.80	ug/L	1.0	96	70	130			
trans-1,4-Dichloro-2-butene	5.32	ug/L	1.0	106	70	130			
Dichlorodifluoromethane	4.44	ug/L	1.0	89	70	130			
1,1-Dichloroethane	4.92	ug/L	1.0	98	70	130			
1,2-Dichloroethane	4.48	ug/L	1.0	90	70	130			
1,1-Dichloroethene	4.80	ug/L	1.0	96	80	120			
cis-1,2-Dichloroethene	4.60	ug/L	1.0	92	70	130			
trans-1,2-Dichloroethene	4.88	ug/L	1.0	98	70	130			
1,2-Dichloropropane	4.60	ug/L	1.0	92	80	120			
cis-1,3-Dichloropropene	4.40	ug/L	1.0	88	70	130			
trans-1,3-Dichloropropene	4.52	ug/L	1.0	90	70	130			
Ethylbenzene	4.44	ug/L	1.0	89	80	120			
2-Hexanone	47.2	ug/L	20	94	70	130			
Iodomethane	4.20	ug/L	1.0	84	70	130			
Methyl ethyl ketone	46.8	ug/L	20	94	70	130			
Methyl isobutyl ketone	48.8	ug/L	20	98	70	130			
Methylene chloride	4.40	ug/L	1.0	88	70	130			
Styrene	4.52	ug/L	1.0	90	70	130			
1,1,1,2-Tetrachloroethane	4.72	ug/L	1.0	94	70	130			
1,1,2,2-Tetrachloroethane	4.56	ug/L	1.0	91	70	130			
Tetrachloroethene	4.92	ug/L	1.0	98	70	130			
Toluene	4.40	ug/L	1.0	88	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/26/07
Work Order: H07060201

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
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Method: SW8260B

Analytical Run: 1SATURN_070625A

Sample ID: CCV062507A	Continuing Calibration Verification Standard							06/25/07 08:58	
1,1,1-Trichloroethane	4.80	ug/L	1.0	96	70	130			
1,1,2-Trichloroethane	4.16	ug/L	1.0	83	70	130			
Trichloroethene	4.64	ug/L	1.0	93	70	130			
Trichlorofluoromethane	5.28	ug/L	1.0	106	70	130			
1,2,3-Trichloropropane	5.72	ug/L	1.0	114	70	130			
Vinyl acetate	4.32	ug/L	1.0	86	70	130			
Vinyl chloride	4.84	ug/L	1.0	97	80	120			
m+p-Xylenes	8.80	ug/L	1.0	88	70	130			
o-Xylene	4.36	ug/L	1.0	87	70	130			
Surr: 1,2-Dichloroethane-d4			1.0	117	70	130			
Surr: Dibromofluoromethane			1.0	98	70	130			
Surr: p-Bromofluorobenzene			1.0	106	70	130			
Surr: Toluene-d8			1.0	104	70	130			

Method: SW8260B

Batch: R38157

Sample ID: LCS062507A	Laboratory Control Sample			Run: 1SATURN_070625A			06/25/07 09:27		
Acetone	54.4	ug/L	20	109	70	130			
Acrylonitrile	45.2	ug/L	20	90	70	130			
Benzene	4.32	ug/L	1.0	86	70	130			
Bromochloromethane	4.52	ug/L	1.0	90	70	130			
Bromodichloromethane	4.32	ug/L	1.0	86	70	130			
Bromoform	4.60	ug/L	1.0	92	70	130			
Bromomethane	4.48	ug/L	1.0	90	70	130			
Carbon disulfide	4.84	ug/L	1.0	97	70	130			
Carbon tetrachloride	4.64	ug/L	1.0	93	70	130			
Chlorobenzene	4.40	ug/L	1.0	88	70	130			
Chlorodibromomethane	4.84	ug/L	1.0	97	70	130			
Chloroethane	4.00	ug/L	1.0	80	70	130			
Chloroform	4.12	ug/L	1.0	82	70	130			
Chloromethane	4.76	ug/L	1.0	95	70	130			
1,2-Dibromo-3-chloropropane	4.68	ug/L	1.0	94	70	130			
1,2-Dibromoethane	5.96	ug/L	1.0	119	70	130			
Dibromomethane	4.52	ug/L	1.0	90	70	130			
1,2-Dichlorobenzene	4.44	ug/L	1.0	89	70	130			
1,4-Dichlorobenzene	4.72	ug/L	1.0	94	70	130			
trans-1,4-Dichloro-2-butene	5.16	ug/L	1.0	103	70	130			
Dichlorodifluoromethane	4.12	ug/L	1.0	82	70	130			
1,1-Dichloroethane	4.56	ug/L	1.0	91	70	130			
1,2-Dichloroethane	4.64	ug/L	1.0	93	70	130			
1,1-Dichloroethene	4.24	ug/L	1.0	85	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/26/07
Work Order: H07060201

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B									
Batch: R38157									
Sample ID: LCS062507A	Laboratory Control Sample				Run: 1SATURN_070625A				06/25/07 09:27
cis-1,2-Dichloroethene	4.28	ug/L	1.0	86	70	130			
trans-1,2-Dichloroethene	4.72	ug/L	1.0	94	70	130			
1,2-Dichloropropane	4.76	ug/L	1.0	95	70	130			
cis-1,3-Dichloropropene	4.36	ug/L	1.0	87	70	130			
trans-1,3-Dichloropropene	4.64	ug/L	1.0	93	70	130			
Ethylbenzene	4.20	ug/L	1.0	84	70	130			
2-Hexanone	53.6	ug/L	20	107	70	130			
Iodomethane	3.79	ug/L	1.0	76	70	130			
Methyl ethyl ketone	52.8	ug/L	20	106	70	130			
Methyl isobutyl ketone	54.0	ug/L	20	108	70	130			
Methylene chloride	4.04	ug/L	1.0	81	70	130			
Styrene	4.40	ug/L	1.0	88	70	130			
1,1,1,2-Tetrachloroethane	4.56	ug/L	1.0	91	70	130			
1,1,2,2-Tetrachloroethane	4.52	ug/L	1.0	90	70	130			
Tetrachloroethene	4.44	ug/L	1.0	89	70	130			
Toluene	4.28	ug/L	1.0	86	70	130			
1,1,1-Trichloroethane	4.40	ug/L	1.0	88	70	130			
1,1,2-Trichloroethane	4.56	ug/L	1.0	91	70	130			
Trichloroethene	4.48	ug/L	1.0	90	70	130			
Trichlorofluoromethane	4.72	ug/L	1.0	94	70	130			
1,2,3-Trichloropropane	5.72	ug/L	1.0	114	70	130			
Vinyl acetate	4.16	ug/L	1.0	83	70	130			
Vinyl chloride	4.40	ug/L	1.0	88	70	130			
m+p-Xylenes	8.44	ug/L	1.0	84	70	130			
o-Xylene	4.28	ug/L	1.0	86	70	130			
Surr: 1,2-Dichloroethane-d4			1.0	111	70	130			
Surr: Dibromofluoromethane			1.0	92	70	130			
Surr: p-Bromofluorobenzene			1.0	105	70	130			
Surr: Toluene-d8			1.0	100	70	130			
Sample ID: MBLK062507A									
Method Blank				Run: 1SATURN_070625A				06/25/07 11:32	
Acetone	ND	ug/L	20						
Acrylonitrile	ND	ug/L	20						
Benzene	ND	ug/L	1.0						
Bromochloromethane	ND	ug/L	1.0						
Bromodichloromethane	ND	ug/L	1.0						
Bromoform	ND	ug/L	1.0						
Bromomethane	ND	ug/L	1.0						
Carbon disulfide	ND	ug/L	1.0						
Carbon tetrachloride	ND	ug/L	1.0						
Chlorobenzene	ND	ug/L	1.0						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/26/07
Work Order: H07060201

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: R38157		
Sample ID: MBLK062507A	Method Blank		Run: 1SATURN_070625A				06/25/07 11:32		
Chlorodibromomethane	ND	ug/L	1.0						
Chloroethane	ND	ug/L	1.0						
Chloroform	ND	ug/L	1.0						
Chloromethane	ND	ug/L	1.0						
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0						
1,2-Dibromoethane	ND	ug/L	1.0						
Dibromomethane	ND	ug/L	1.0						
1,2-Dichlorobenzene	ND	ug/L	1.0						
1,4-Dichlorobenzene	ND	ug/L	1.0						
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0						
Dichlorodifluoromethane	ND	ug/L	1.0						
1,1-Dichloroethane	ND	ug/L	1.0						
1,2-Dichloroethane	ND	ug/L	1.0						
1,1-Dichloroethene	ND	ug/L	1.0						
cis-1,2-Dichloroethene	ND	ug/L	1.0						
trans-1,2-Dichloroethene	ND	ug/L	1.0						
1,2-Dichloropropane	ND	ug/L	1.0						
cis-1,3-Dichloropropene	ND	ug/L	1.0						
trans-1,3-Dichloropropene	ND	ug/L	1.0						
Ethylbenzene	ND	ug/L	1.0						
2-Hexanone	ND	ug/L	20						
Iodomethane	ND	ug/L	1.0						
Methyl ethyl ketone	ND	ug/L	20						
Methyl isobutyl ketone	ND	ug/L	20						
Methylene chloride	ND	ug/L	1.0						
Styrene	ND	ug/L	1.0						
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0						
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0						
Tetrachloroethene	ND	ug/L	1.0						
Toluene	ND	ug/L	1.0						
1,1,1-Trichloroethane	ND	ug/L	1.0						
1,1,2-Trichloroethane	ND	ug/L	1.0						
Trichloroethene	ND	ug/L	1.0						
Trichlorofluoromethane	ND	ug/L	1.0						
1,2,3-Trichloropropane	ND	ug/L	1.0						
Vinyl acetate	ND	ug/L	1.0						
Vinyl chloride	ND	ug/L	1.0						
m+p-Xylenes	ND	ug/L	1.0						
o-Xylene	ND	ug/L	1.0						
Surr: 1,2-Dichloroethane-d4			1.0	112	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/26/07
Work Order: H07060201

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B									Batch: R38157
Sample ID: MBLK062507A	Method Blank	Run: 1SATURN_070625A							06/25/07 11:32
Surr: Dibromofluoromethane			1.0	90	70	130			
Surr: p-Bromofluorobenzene			1.0	98	70	130			
Surr: Toluene-d8			1.0	95	70	130			
Sample ID: H07060189-012AMS	Sample Matrix Spike	Run: 1SATURN_070625A							06/25/07 18:23
Acetone	92.8	ug/L	40	93	70	130			
Acrylonitrile	93.6	ug/L	40	94	70	130			
Benzene	9.20	ug/L	2.0	92	70	130			
Bromochloromethane	9.92	ug/L	2.0	99	70	130			
Bromodichloromethane	8.32	ug/L	2.0	83	70	130			
Bromoform	9.60	ug/L	2.0	96	70	130			
Bromomethane	10.1	ug/L	2.0	101	70	130			
Carbon disulfide	9.76	ug/L	2.0	98	70	130			
Carbon tetrachloride	9.28	ug/L	2.0	93	70	130			
Chlorobenzene	9.36	ug/L	2.0	94	70	130			
Chlorodibromomethane	9.04	ug/L	2.0	90	70	130			
Chloroethane	8.48	ug/L	2.0	85	70	130			
Chloroform	11.2	ug/L	2.0	79	70	130			
Chloromethane	9.68	ug/L	2.0	97	70	130			
1,2-Dibromo-3-chloropropane	8.40	ug/L	2.0	84	70	130			
1,2-Dibromoethane	12.5	ug/L	2.0	125	70	130			
Dibromomethane	8.80	ug/L	2.0	88	70	130			
1,2-Dichlorobenzene	8.96	ug/L	2.0	90	70	130			
1,4-Dichlorobenzene	9.92	ug/L	2.0	99	70	130			
trans-1,4-Dichloro-2-butene	9.52	ug/L	2.0	95	70	130			
Dichlorodifluoromethane	9.20	ug/L	2.0	85	70	130			
1,1-Dichloroethane	9.52	ug/L	2.0	92	70	130			
1,2-Dichloroethane	8.24	ug/L	2.0	82	70	130			
1,1-Dichloroethene	9.12	ug/L	2.0	91	70	130			
cis-1,2-Dichloroethene	8.80	ug/L	2.0	86	70	130			
trans-1,2-Dichloroethene	9.04	ug/L	2.0	90	70	130			
1,2-Dichloropropane	10.2	ug/L	2.0	102	70	130			
cis-1,3-Dichloropropene	8.72	ug/L	2.0	87	70	130			
trans-1,3-Dichloropropene	9.84	ug/L	2.0	98	70	130			
Ethylbenzene	8.64	ug/L	2.0	86	70	130			
2-Hexanone	97.6	ug/L	40	98	70	130			
Iodomethane	8.40	ug/L	2.0	84	70	130			
Methyl ethyl ketone	99.2	ug/L	40	99	70	130			
Methyl isobutyl ketone	96.0	ug/L	40	96	70	130			
Methylene chloride	8.64	ug/L	2.0	86	70	130			
Styrene	8.96	ug/L	2.0	90	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/26/07
Work Order: H07060201

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: R38157		
Sample ID: H07060189-012AMS	Sample Matrix Spike		Run: 1SATURN_070625A				06/25/07 18:23		
1,1,1,2-Tetrachloroethane	10.0	ug/L	2.0	100	70	130			
1,1,2,2-Tetrachloroethane	8.96	ug/L	2.0	90	70	130			
Tetrachloroethene	10.6	ug/L	2.0	88	70	130			
Toluene	8.64	ug/L	2.0	86	70	130			
1,1,1-Trichloroethane	9.28	ug/L	2.0	93	70	130			
1,1,2-Trichloroethane	9.60	ug/L	2.0	96	70	130			
Trichloroethene	10.0	ug/L	2.0	97	70	130			
Trichlorofluoromethane	10.7	ug/L	2.0	104	70	130			
1,2,3-Trichloropropane	13.3	ug/L	2.0	133	70	130			S
Vinyl acetate	7.84	ug/L	2.0	78	70	130			
Vinyl chloride	9.28	ug/L	2.0	93	70	130			
m+p-Xylenes	17.1	ug/L	2.0	86	70	130			
o-Xylene	8.32	ug/L	2.0	83	70	130			
Surr: 1,2-Dichloroethane-d4			2.0	93	70	130			
Surr: Dibromofluoromethane			2.0	93	70	130			
Surr: p-Bromofluorobenzene			2.0	105	70	130			
Surr: Toluene-d8			2.0	104	70	130			
Sample ID: H07060189-012AMSD	Sample Matrix Spike Duplicate		Run: 1SATURN_070625A				06/25/07 18:52		
Acetone	103	ug/L	40	103	70	130	11	20	
Acrylonitrile	101	ug/L	40	101	70	130	7.4	20	
Benzene	9.84	ug/L	2.0	98	70	130	6.7	20	
Bromochloromethane	11.0	ug/L	2.0	110	70	130	10.0	20	
Bromodichloromethane	9.36	ug/L	2.0	94	70	130	12	20	
Bromoform	10.8	ug/L	2.0	108	70	130	12	20	
Bromomethane	11.6	ug/L	2.0	116	70	130	14	20	
Carbon disulfide	10.7	ug/L	2.0	107	70	130	9.4	20	
Carbon tetrachloride	9.92	ug/L	2.0	99	70	130	6.7	20	
Chlorobenzene	9.84	ug/L	2.0	98	70	130	5.0	20	
Chlorodibromomethane	10.2	ug/L	2.0	102	70	130	12	20	
Chloroethane	10.0	ug/L	2.0	100	70	130	16	20	
Chloroform	12.2	ug/L	2.0	89	70	130	8.2	20	
Chloromethane	10.7	ug/L	2.0	107	70	130	10	20	
1,2-Dibromo-3-chloropropane	9.04	ug/L	2.0	90	70	130	7.3	20	
1,2-Dibromoethane	13.4	ug/L	2.0	134	70	130	7.4	20	S
Dibromomethane	9.92	ug/L	2.0	99	70	130	12	20	
1,2-Dichlorobenzene	10.1	ug/L	2.0	101	70	130	12	20	
1,4-Dichlorobenzene	10.4	ug/L	2.0	104	70	130	4.7	20	
trans-1,4-Dichloro-2-butene	11.1	ug/L	2.0	111	70	130	16	20	
Dichlorodifluoromethane	10.2	ug/L	2.0	95	70	130	11	20	
1,1-Dichloroethane	10.6	ug/L	2.0	103	70	130	11	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 City of Helena

Report Date: 06/26/07
Work Order: H07060201

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B									Batch: R38157
Sample ID: H07060189-012AMSD	Sample Matrix Spike Duplicate		Run: 1SATURN_070625A					06/25/07 18:52	
1,2-Dichloroethane	8.64	ug/L	2.0	86	70	130	4.7	20	
1,1-Dichloroethene	9.44	ug/L	2.0	94	70	130	3.4	20	
cis-1,2-Dichloroethene	9.52	ug/L	2.0	93	70	130	7.9	20	
trans-1,2-Dichloroethene	10.0	ug/L	2.0	100	70	130	10	20	
1,2-Dichloropropane	10.2	ug/L	2.0	102	70	130	0.0	20	
cis-1,3-Dichloropropene	9.68	ug/L	2.0	97	70	130	10	20	
trans-1,3-Dichloropropene	10.2	ug/L	2.0	102	70	130	4.0	20	
Ethylbenzene	9.28	ug/L	2.0	93	70	130	7.1	20	
2-Hexanone	111	ug/L	40	111	70	130	13	20	
Iodomethane	9.12	ug/L	2.0	91	70	130	8.2	20	
Methyl ethyl ketone	115	ug/L	40	115	70	130	15	20	
Methyl isobutyl ketone	110	ug/L	40	110	70	130	14	20	
Methylene chloride	8.96	ug/L	2.0	90	70	130	3.6	20	
Styrene	9.44	ug/L	2.0	94	70	130	5.2	20	
1,1,1,2-Tetrachloroethane	10.1	ug/L	2.0	101	70	130	0.8	20	
1,1,2,2-Tetrachloroethane	9.68	ug/L	2.0	97	70	130	7.7	20	
Tetrachloroethene	10.4	ug/L	2.0	87	70	130	1.5	20	
Toluene	9.36	ug/L	2.0	94	70	130	8.0	20	
1,1,1-Trichloroethane	10.3	ug/L	2.0	103	70	130	11	20	
1,1,2-Trichloroethane	10.3	ug/L	2.0	103	70	130	7.2	20	
Trichloroethene	10.2	ug/L	2.0	100	70	130	2.4	20	
Trichlorofluoromethane	11.0	ug/L	2.0	108	70	130	2.9	20	
1,2,3-Trichloropropane	12.6	ug/L	2.0	126	70	130	5.6	20	
Vinyl acetate	9.44	ug/L	2.0	94	70	130	19	20	
Vinyl chloride	10.2	ug/L	2.0	102	70	130	9.8	20	
m+p-Xylenes	18.2	ug/L	2.0	91	70	130	6.3	20	
o-Xylene	9.12	ug/L	2.0	91	70	130	9.2	20	
Surr: 1,2-Dichloroethane-d4			2.0	96	70	130	0.0	20	
Surr: Dibromofluoromethane			2.0	97	70	130	0.0	20	
Surr: p-Bromofluorobenzene			2.0	106	70	130	0.0	20	
Surr: Toluene-d8			2.0	101	70	130	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



2727 Airport Road • Helena, Montana 59601 • (406) 443-4150

[illegible]



Energy Laboratories Inc

Workorder Receipt Checklist



H07060201

Login completed by: Roxanne L. Tubbs

Reviewed by: *JDH*

Reviewed Date:

Date and Time Received: 6/19/2007 10:34 AM

Received by: rlt

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	4°C On Ice
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☒

Contact and Corrective Action Comments:

None



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HFORM-1-5/99

Return results & electronic copy to:
Computer Dept. at address at top of page

7/10/07

<u>Site</u>	<u>Code</u>	<u>Date</u>	<u>Time</u>	<u>Bottles/Pres/Analys.'s</u>
<u>Pond</u>	CHHL- 0707- 100	7/10/07	08:30	2/40/40/uf/Vol
<u>Sprinkler</u>	CHHL- 0707- 101		08:45	

SAME As Before

WeatherReadings

Calm, Clear, 70°

	<u>Flow</u>	<u>H_n</u>	<u>Total</u>
99-3	25.5	1342.5	1) 964467 2) 964175
99-2	32.6	1343.5	1) 948601 2) 948335
99-1	27.7	1342.6	1) 596330 2) 581875

CASE NARRATIVE

ANALYTICAL SUMMARY REPORT

July 12, 2007

Hydrometrics Inc
3020 Bozeman Ave.
Helena, MT 59601

Workorder No.: H07070096

Project Name: 1273 COH

Energy Laboratories Inc received the following 2 samples from Hydrometrics Inc on 7/10/2007 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H07070096-001	CHHL-0707-100	07/10/07 8:30	07/10/07	Aqueous	8260-Volatile Organic Comp, 40 CFR Part 258 App I
H07070096-002	CHHL-0707-101	07/10/07 8:45	07/10/07	Aqueous	Same As Above

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005
eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002
eli-f - Energy Laboratories, Inc. - Idaho Falls, ID, EPA # ID00942
eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006
eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945
eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012
eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

SUBCONTRACTING ANALYSIS

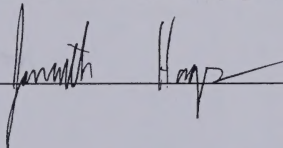
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Report Approved By: _____



LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 COH
Lab ID: H07070096-001
Client Sample ID: CHHL-0707-100

Report Date: 07/12/07
Collection Date: 07/10/07 08:30
Date Received: 07/10/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	07/11/07 19:53 / jdh
Acrylonitrile	ND	ug/L		20		SW8260B	07/11/07 19:53 / jdh
Benzene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
Bromochloromethane	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
Bromodichloromethane	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
Bromoform	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
Bromomethane	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
Carbon disulfide	ND	ug/L		1.0		SW8260B	07/11/07 19:53 / jdh
Carbon tetrachloride	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
Chlorobenzene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
Chlorodibromomethane	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
Chloroethane	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
Chloroform	0.74	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
Chloromethane	ND	ug/L		1.0		SW8260B	07/11/07 19:53 / jdh
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	07/11/07 19:53 / jdh
1,2-Dibromoethane	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
Dibromomethane	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,2-Dichlorobenzene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
trans-1,4-Dichloro-2-butene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	07/11/07 19:53 / jdh
1,1-Dichloroethane	0.17	ug/L	J	0.50		SW8260B	07/11/07 19:53 / jdh
1,2-Dichloroethane	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,1-Dichloroethene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
cis-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
trans-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,2-Dichloropropane	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
cis-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
trans-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
Ethylbenzene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
2-Hexanone	ND	ug/L		20		SW8260B	07/11/07 19:53 / jdh
Iodomethane	ND	ug/L		1.0		SW8260B	07/11/07 19:53 / jdh
Methyl ethyl ketone	ND	ug/L		20		SW8260B	07/11/07 19:53 / jdh
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	07/11/07 19:53 / jdh
Methylene chloride	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
Styrene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
Tetrachloroethene	0.43	ug/L	J	0.50		SW8260B	07/11/07 19:53 / jdh
Toluene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,1,1-Trichloroethane	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,1,2-Trichloroethane	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

J - Estimated value. The analyte was present but less than the reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 COH
Lab ID: H07070096-001
Client Sample ID: CHHL-0707-100

Report Date: 07/12/07
Collection Date: 07/10/07 08:30
DateReceived: 07/10/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Trichloroethene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
Trichlorofluoromethane	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,2,3-Trichloropropane	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
Vinyl acetate	ND	ug/L		1.0		SW8260B	07/11/07 19:53 / jdh
Vinyl chloride	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
m+p-Xylenes	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
o-Xylene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
Surr: 1,2-Dichloroethane-d4	118	%REC			70-130	SW8260B	07/11/07 19:53 / jdh
Surr: Dibromofluoromethane	103	%REC			70-130	SW8260B	07/11/07 19:53 / jdh
Surr: p-Bromofluorobenzene	106	%REC			70-130	SW8260B	07/11/07 19:53 / jdh
Surr: Toluene-d8	93.0	%REC			70-130	SW8260B	07/11/07 19:53 / jdh
1,1-Dichloroethene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,1,1-Trichloroethene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,2-Dichloroethane	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,2,3,4-Tetrachlorobenzene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,2,4-Trichlorobenzene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,3-Dichlorobenzene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d2	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d4	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d6	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d8	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d10	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d12	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d14	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d16	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d18	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d20	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d22	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d24	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d26	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d28	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d30	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d32	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d34	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d36	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d38	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d40	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d42	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d44	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d46	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d48	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d50	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d52	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d54	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh
1,4-Dichlorobenzene-d56	ND	ug/L		0.50		SW8260B	07/11/07 19:53 / jdh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 COH
Lab ID: H07070096-002
Client Sample ID: CHHL-0707-101

Report Date: 07/12/07
Collection Date: 07/10/07 08:45
Date Received: 07/10/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	07/11/07 20:22 / jdh
Acrylonitrile	ND	ug/L		20		SW8260B	07/11/07 20:22 / jdh
Benzene	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
Bromochloromethane	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
Bromodichloromethane	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
Bromoform	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
Bromomethane	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
Carbon disulfide	ND	ug/L		1.0		SW8260B	07/11/07 20:22 / jdh
Carbon tetrachloride	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
Chlorobenzene	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
Chlorodibromomethane	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
Chloroethane	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
Chloroform	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
Chloromethane	ND	ug/L		1.0		SW8260B	07/11/07 20:22 / jdh
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	07/11/07 20:22 / jdh
1,2-Dibromoethane	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
Dibromomethane	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
1,2-Dichlorobenzene	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
1,4-Dichlorobenzene	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
trans-1,4-Dichloro-2-butene	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	07/11/07 20:22 / jdh
1,1-Dichloroethane	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
1,2-Dichloroethane	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
1,1-Dichloroethene	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
cis-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
trans-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
1,2-Dichloropropane	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
cis-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
trans-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
Ethylbenzene	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
2-Hexanone	ND	ug/L		20		SW8260B	07/11/07 20:22 / jdh
Iodomethane	ND	ug/L		1.0		SW8260B	07/11/07 20:22 / jdh
Methyl ethyl ketone	ND	ug/L		20		SW8260B	07/11/07 20:22 / jdh
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	07/11/07 20:22 / jdh
Methylene chloride	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
Styrene	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
Tetrachloroethene	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
Toluene	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
1,1,1-Trichloroethane	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
1,1,2-Trichloroethane	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

QA/QC Summary Report

Client: Hydrometrics Inc
Project: 1273 COH
Lab ID: H07070096-002
Client Sample ID: CHHL-0707-101

Report Date: 07/12/07
Collection Date: 07/10/07 08:45
Date Received: 07/10/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Trichloroethene	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
Trichlorofluoromethane	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
1,2,3-Trichloropropane	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
Vinyl acetate	ND	ug/L		1.0		SW8260B	07/11/07 20:22 / jdh
Vinyl chloride	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
m+p-Xylenes	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
o-Xylene	ND	ug/L		0.50		SW8260B	07/11/07 20:22 / jdh
Surr: 1,2-Dichloroethane-d4	97.0	%REC			70-130	SW8260B	07/11/07 20:22 / jdh
Surr: Dibromofluoromethane	104	%REC			70-130	SW8260B	07/11/07 20:22 / jdh
Surr: p-Bromofluorobenzene	106	%REC			70-130	SW8260B	07/11/07 20:22 / jdh
Surr: Toluene-d8	93.0	%REC			70-130	SW8260B	07/11/07 20:22 / jdh
Chloroform	0.18	ug/L		0.50	70	700	
Dichloromethane	0.41	ug/L		0.50	70	100	
Bromochloromethane	0.26	ug/L		0.50	70	100	
1,1-Dichloroethene	0.26	ug/L		1.0	70	100	
1,1,1-Trichloroethene	0.04	ug/L		1.0	70	100	
1,1,2-Trichloroethene	0.20	ug/L		1.0	70	100	
1,2-Dichloroethene	0.03	ug/L		0.50	70	100	
1,1,2,2-Tetrachloroethene	0.75	ug/L		1.0	70	100	
1,1,1,2-Tetrachloroethane	0.05	ug/L		1.0	70	100	
1,1,2,2-Tetrachloroethane	0.08	ug/L		1.0	70	100	
1,1,1,3-Tetrachloroethane	0.02	ug/L		1.0	70	100	
1,1,2,3-Tetrachloroethane	0.02	ug/L		1.0	70	100	
1,1,3,3-Tetrachloroethane	0.01	ug/L		1.0	70	100	
1,2,3,4-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,5-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,4,5-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,3,5-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,6-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,6-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,3,6-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,7-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,7-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,8-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,8-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,9-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,9-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,10-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,10-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,11-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,11-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,12-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,12-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,13-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,13-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,14-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,14-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,15-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,15-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,16-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,16-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,17-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,17-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,18-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,18-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,19-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,19-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,20-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,20-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,21-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,21-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,22-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,22-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,23-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,23-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,24-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,24-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,25-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,25-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,26-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,26-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,27-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,27-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,28-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,28-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,29-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,29-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,30-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,30-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,31-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,31-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,32-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,32-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,33-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,33-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,34-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,34-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,35-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,35-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,36-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,36-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,37-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,37-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,38-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,38-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,39-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,39-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,40-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,40-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,41-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,41-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,42-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,42-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,43-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,43-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,44-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,44-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,45-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,45-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,46-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,46-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,47-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,47-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,48-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,48-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,49-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,49-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,2,4,50-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	
1,3,5,50-Tetrachlorobenzene	0.01	ug/L		1.0	70	100	

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Hydrometrics Inc

Project: 1273 COH

Report Date: 07/12/07

Work Order: H07070096

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Analytical Run: 1SATURN_070711B		
Sample ID: CCV071107A	Continuing Calibration Verification Standard								07/11/07 12:18
Acetone	55.2	ug/L	20	110	70	130			
Acrylonitrile	51.2	ug/L	20	102	70	130			
Benzene	5.32	ug/L	1.0	106	70	130			
Bromochloromethane	5.76	ug/L	1.0	115	70	130			
Bromodichloromethane	4.12	ug/L	1.0	82	70	130			
Bromoform	4.88	ug/L	1.0	98	70	130			
Bromomethane	5.84	ug/L	1.0	117	70	130			
Carbon disulfide	4.88	ug/L	1.0	98	70	130			
Carbon tetrachloride	5.52	ug/L	1.0	110	70	130			
Chlorobenzene	4.36	ug/L	1.0	87	70	130			
Chlorodibromomethane	4.84	ug/L	1.0	97	70	130			
Chloroethane	5.16	ug/L	1.0	103	70	130			
Chloroform	5.40	ug/L	1.0	108	80	120			
Chloromethane	6.00	ug/L	1.0	120	70	130			
1,2-Dibromo-3-chloropropane	4.36	ug/L	1.0	87	70	130			
1,2-Dibromoethane	5.84	ug/L	1.0	117	70	130			
Dibromomethane	4.20	ug/L	1.0	84	70	130			
1,2-Dichlorobenzene	4.48	ug/L	1.0	90	70	130			
1,4-Dichlorobenzene	4.76	ug/L	1.0	95	70	130			
trans-1,4-Dichloro-2-butene	5.64	ug/L	1.0	113	70	130			
Dichlorodifluoromethane	5.08	ug/L	1.0	102	70	130			
1,1-Dichloroethane	5.52	ug/L	1.0	110	70	130			
1,2-Dichloroethane	5.20	ug/L	1.0	104	70	130			
1,1-Dichloroethene	5.40	ug/L	1.0	108	80	120			
cis-1,2-Dichloroethene	5.00	ug/L	1.0	100	70	130			
trans-1,2-Dichloroethene	5.32	ug/L	1.0	106	70	130			
1,2-Dichloropropane	4.64	ug/L	1.0	93	80	120			
cis-1,3-Dichloropropene	4.16	ug/L	1.0	83	70	130			
trans-1,3-Dichloropropene	4.00	ug/L	1.0	80	70	130			
Ethylbenzene	4.36	ug/L	1.0	87	80	120			
2-Hexanone	47.2	ug/L	20	94	70	130			
Iodomethane	4.72	ug/L	1.0	94	70	130			
Methyl ethyl ketone	54.4	ug/L	20	109	70	130			
Methyl isobutyl ketone	45.2	ug/L	20	90	70	130			
Methylene chloride	5.12	ug/L	1.0	102	70	130			
Styrene	4.12	ug/L	1.0	82	70	130			
1,1,1,2-Tetrachloroethane	4.52	ug/L	1.0	90	70	130			
1,1,2,2-Tetrachloroethane	4.36	ug/L	1.0	87	70	130			
Tetrachloroethene	4.60	ug/L	1.0	92	70	130			
Toluene	4.20	ug/L	1.0	84	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Hydrometrics Inc

Project: 1273 COH

Report Date: 07/12/07

Work Order: H07070096

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Analytical Run: 1SATURN_070711B		
Sample ID: CCV071107A	Continuing Calibration Verification Standard							07/11/07 12:18	
1,1,1-Trichloroethane	5.48	ug/L	1.0	110	70	130			
1,1,2-Trichloroethane	4.48	ug/L	1.0	90	70	130			
Trichloroethene	4.56	ug/L	1.0	91	70	130			
Trichlorofluoromethane	5.80	ug/L	1.0	116	70	130			
1,2,3-Trichloropropane	5.72	ug/L	1.0	114	70	130			
Vinyl acetate	4.80	ug/L	1.0	96	70	130			
Vinyl chloride	5.52	ug/L	1.0	110	80	120			
m+p-Xylenes	8.72	ug/L	1.0	87	70	130			
o-Xylene	4.32	ug/L	1.0	86	70	130			
Surr: 1,2-Dichloroethane-d4			1.0	116	70	130			
Surr: Dibromofluoromethane			1.0	102	70	130			
Surr: p-Bromofluorobenzene			1.0	107	70	130			
Surr: Toluene-d8			1.0	90	70	130			

Method: SW8260B							Batch: R38517		
Sample ID: LCS071107B	Laboratory Control Sample				Run: 1SATURN_070711B		07/11/07 13:38		
Acetone	60.0	ug/L	20	120	70	130			
Acrylonitrile	102	ug/L	20	102	70	130			
Benzene	5.32	ug/L	1.0	106	70	130			
Bromochloromethane	5.48	ug/L	1.0	110	70	130			
Bromodichloromethane	4.16	ug/L	1.0	83	70	130			
Bromoform	4.88	ug/L	1.0	98	70	130			
Bromomethane	5.72	ug/L	1.0	114	70	130			
Carbon disulfide	5.76	ug/L	1.0	115	70	130			
Carbon tetrachloride	5.56	ug/L	1.0	111	70	130			
Chlorobenzene	4.52	ug/L	1.0	90	70	130			
Chlorodibromomethane	5.00	ug/L	1.0	100	70	130			
Chloroethane	5.36	ug/L	1.0	107	70	130			
Chloroform	4.92	ug/L	1.0	98	70	130			
Chloromethane	6.24	ug/L	1.0	125	70	130			
1,2-Dibromo-3-chloropropane	4.32	ug/L	1.0	86	70	130			
1,2-Dibromoethane	6.20	ug/L	1.0	124	70	130			
Dibromomethane	4.16	ug/L	1.0	83	70	130			
1,2-Dichlorobenzene	4.24	ug/L	1.0	85	70	130			
1,4-Dichlorobenzene	4.68	ug/L	1.0	94	70	130			
trans-1,4-Dichloro-2-butene	6.16	ug/L	1.0	123	70	130			
Dichlorodifluoromethane	5.32	ug/L	1.0	106	70	130			
1,1-Dichloroethane	5.32	ug/L	1.0	106	70	130			
1,2-Dichloroethane	5.40	ug/L	1.0	108	70	130			
1,1-Dichloroethene	4.76	ug/L	1.0	95	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Hydrometrics Inc

Project: 1273 COH

Report Date: 07/12/07

Work Order: H07070096

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: R38517		
Sample ID: LCS071107B	Laboratory Control Sample				Run: 1SATURN_070711B			07/11/07 13:38	
cis-1,2-Dichloroethene	5.04	ug/L	1.0	101	70	130			
trans-1,2-Dichloroethene	5.32	ug/L	1.0	106	70	130			
1,2-Dichloropropane	4.72	ug/L	1.0	94	70	130			
cis-1,3-Dichloropropene	4.12	ug/L	1.0	82	70	130			
trans-1,3-Dichloropropene	4.44	ug/L	1.0	89	70	130			
Ethylbenzene	4.20	ug/L	1.0	84	70	130			
2-Hexanone	55.6	ug/L	20	111	70	130			
Iodomethane	4.56	ug/L	1.0	91	70	130			
Methyl ethyl ketone	63.2	ug/L	20	126	70	130			
Methyl isobutyl ketone	53.6	ug/L	20	107	70	130			
Methylene chloride	4.72	ug/L	1.0	94	70	130			
Styrene	4.40	ug/L	1.0	88	70	130			
1,1,1,2-Tetrachloroethane	4.68	ug/L	1.0	94	70	130			
1,1,2,2-Tetrachloroethane	4.76	ug/L	1.0	95	70	130			
Tetrachloroethene	4.32	ug/L	1.0	86	70	130			
Toluene	4.32	ug/L	1.0	86	70	130			
1,1,1-Trichloroethane	5.24	ug/L	1.0	105	70	130			
1,1,2-Trichloroethane	4.52	ug/L	1.0	90	70	130			
Trichloroethene	4.28	ug/L	1.0	86	70	130			
Trichlorofluoromethane	6.12	ug/L	1.0	122	70	130			
1,2,3-Trichloropropane	6.32	ug/L	1.0	126	70	130			
Vinyl acetate	4.80	ug/L	1.0	96	70	130			
Vinyl chloride	5.88	ug/L	1.0	118	70	130			
m+p-Xylenes	8.48	ug/L	1.0	85	70	130			
o-Xylene	4.36	ug/L	1.0	87	70	130			
Surr: 1,2-Dichloroethane-d4			1.0	98	70	130			
Surr: Dibromofluoromethane			1.0	102	70	130			
Surr: p-Bromofluorobenzene			1.0	106	70	130			
Surr: Toluene-d8			1.0	93	70	130			
Sample ID: MBLK071107A	Method Blank				Run: 1SATURN_070711B			07/11/07 15:26	
Acetone	ND	ug/L	20						
Acrylonitrile	ND	ug/L	20						
Benzene	ND	ug/L	1.0						
Bromochloromethane	ND	ug/L	1.0						
Bromodichloromethane	ND	ug/L	1.0						
Bromoform	ND	ug/L	1.0						
Bromomethane	ND	ug/L	1.0						
Carbon disulfide	ND	ug/L	1.0						
Carbon tetrachloride	ND	ug/L	1.0						
Chlorobenzene	ND	ug/L	1.0						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Hydrometrics Inc

Project: 1273 COH

Report Date: 07/12/07

Work Order: H07070096

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: R38517		
Sample ID: MBLK071107A	Method Blank		Run: 1SATURN_070711B				07/11/07 15:26		
Chlorodibromomethane	ND	ug/L	1.0						
Chloroethane	ND	ug/L	1.0						
Chloroform	ND	ug/L	1.0						
Chloromethane	ND	ug/L	1.0						
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0						
1,2-Dibromoethane	ND	ug/L	1.0						
Dibromomethane	ND	ug/L	1.0						
1,2-Dichlorobenzene	ND	ug/L	1.0						
1,4-Dichlorobenzene	ND	ug/L	1.0						
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0						
Dichlorodifluoromethane	ND	ug/L	1.0						
1,1-Dichloroethane	ND	ug/L	1.0						
1,2-Dichloroethane	ND	ug/L	1.0						
1,1-Dichloroethene	ND	ug/L	1.0						
cis-1,2-Dichloroethene	ND	ug/L	1.0						
trans-1,2-Dichloroethene	ND	ug/L	1.0						
1,2-Dichloropropane	ND	ug/L	1.0						
cis-1,3-Dichloropropene	ND	ug/L	1.0						
trans-1,3-Dichloropropene	ND	ug/L	1.0						
Ethylbenzene	ND	ug/L	1.0						
2-Hexanone	ND	ug/L	20						
Iodomethane	ND	ug/L	1.0						
Methyl ethyl ketone	ND	ug/L	20						
Methyl isobutyl ketone	ND	ug/L	20						
Methylene chloride	ND	ug/L	1.0						
Styrene	ND	ug/L	1.0						
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0						
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0						
Tetrachloroethene	ND	ug/L	1.0						
Toluene	ND	ug/L	1.0						
1,1,1-Trichloroethane	ND	ug/L	1.0						
1,1,2-Trichloroethane	ND	ug/L	1.0						
Trichloroethene	ND	ug/L	1.0						
Trichlorofluoromethane	ND	ug/L	1.0						
1,2,3-Trichloropropane	ND	ug/L	1.0						
Vinyl acetate	ND	ug/L	1.0						
Vinyl chloride	ND	ug/L	1.0						
m+p-Xylenes	ND	ug/L	1.0						
o-Xylene	ND	ug/L	1.0						
Surr: 1,2-Dichloroethane-d4			1.0	116	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Hydrometrics Inc

Project: 1273 COH

Report Date: 07/12/07

Work Order: H07070096

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: R38517		
Sample ID: MBLK071107A	Method Blank		Run: 1SATURN_070711B				07/11/07 15:26		
Surr: Dibromofluoromethane			1.0	103	70	130			
Surr: p-Bromofluorobenzene			1.0	106	70	130			
Surr: Toluene-d8			1.0	93	70	130			
Sample ID: H07070096-002AMS	Sample Matrix Spike		Run: 1SATURN_070711B				07/11/07 22:16		
Acetone	117	ug/L	40	117	70	130			
Acrylonitrile	90.4	ug/L	40	90	70	130			
Benzene	8.40	ug/L	2.0	84	70	130			
Bromochloromethane	9.68	ug/L	2.0	97	70	130			
Bromodichloromethane	8.32	ug/L	2.0	83	70	130			
Bromoform	8.56	ug/L	2.0	86	70	130			
Bromomethane	12.5	ug/L	2.0	125	70	130			
Carbon disulfide	11.0	ug/L	2.0	110	70	130			
Carbon tetrachloride	9.60	ug/L	2.0	96	70	130			
Chlorobenzene	8.48	ug/L	2.0	85	70	130			
Chlorodibromomethane	9.04	ug/L	2.0	90	70	130			
Chloroethane	9.36	ug/L	2.0	94	70	130			
Chloroform	9.44	ug/L	2.0	94	70	130			
Chloromethane	11.7	ug/L	2.0	117	70	130			
1,2-Dibromo-3-chloropropane	7.56	ug/L	2.0	76	70	130			
1,2-Dibromoethane	11.5	ug/L	2.0	115	70	130			
Dibromomethane	8.40	ug/L	2.0	84	70	130			
1,2-Dichlorobenzene	8.56	ug/L	2.0	86	70	130			
1,4-Dichlorobenzene	8.80	ug/L	2.0	88	70	130			
trans-1,4-Dichloro-2-butene	8.64	ug/L	2.0	86	70	130			
Dichlorodifluoromethane	10.2	ug/L	2.0	102	70	130			
1,1-Dichloroethane	9.60	ug/L	2.0	96	70	130			
1,2-Dichloroethane	10.2	ug/L	2.0	102	70	130			
1,1-Dichloroethene	9.04	ug/L	2.0	90	70	130			
cis-1,2-Dichloroethene	9.12	ug/L	2.0	91	70	130			
trans-1,2-Dichloroethene	9.36	ug/L	2.0	94	70	130			
1,2-Dichloropropane	9.04	ug/L	2.0	90	70	130			
cis-1,3-Dichloropropene	8.72	ug/L	2.0	87	70	130			
trans-1,3-Dichloropropene	8.96	ug/L	2.0	90	70	130			
Ethylbenzene	8.72	ug/L	2.0	87	70	130			
2-Hexanone	106	ug/L	40	106	70	130			
Iodomethane	8.00	ug/L	2.0	80	70	130			
Methyl ethyl ketone	110	ug/L	40	110	70	130			
Methyl isobutyl ketone	102	ug/L	40	102	70	130			
Methylene chloride	9.04	ug/L	2.0	90	70	130			
Styrene	8.56	ug/L	2.0	86	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Hydrometrics Inc

Project: 1273 COH

Report Date: 07/12/07

Work Order: H07070096

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: R38517		
Sample ID: H07070096-002AMS	Sample Matrix Spike		Run: 1SATURN_070711B				07/11/07 22:16		
1,1,1,2-Tetrachloroethane	9.04	ug/L	2.0	90	70	130			
1,1,2,2-Tetrachloroethane	8.80	ug/L	2.0	88	70	130			
Tetrachloroethene	9.04	ug/L	2.0	90	70	130			
Toluene	8.88	ug/L	2.0	89	70	130			
1,1,1-Trichloroethane	9.36	ug/L	2.0	94	70	130			
1,1,2-Trichloroethane	9.60	ug/L	2.0	96	70	130			
Trichloroethene	9.12	ug/L	2.0	91	70	130			
Trichlorofluoromethane	12.2	ug/L	2.0	122	70	130			
1,2,3-Trichloropropane	12.1	ug/L	2.0	121	70	130			
Vinyl acetate	9.60	ug/L	2.0	96	70	130			
Vinyl chloride	11.6	ug/L	2.0	116	70	130			
m+p-Xylenes	16.5	ug/L	2.0	82	70	130			
o-Xylene	8.96	ug/L	2.0	90	70	130			
Surr: 1,2-Dichloroethane-d4			2.0	98	70	130			
Surr: Dibromofluoromethane			2.0	95	70	130			
Surr: p-Bromofluorobenzene			2.0	100	70	130			
Surr: Toluene-d8			2.0	92	70	130			
Sample ID: H07070096-002AMS	Sample Matrix Spike Duplicate		Run: 1SATURN_070711B				07/11/07 22:46		
Acetone	127	ug/L	40	127	70	130	8.5	20	
Acrylonitrile	99.2	ug/L	40	99	70	130	9.3	20	
Benzene	9.36	ug/L	2.0	94	70	130	11	20	
Bromochloromethane	11.3	ug/L	2.0	113	70	130	15	20	
Bromodichloromethane	8.88	ug/L	2.0	89	70	130	6.5	20	
Bromoform	10.1	ug/L	2.0	101	70	130	16	20	
Bromomethane	13.4	ug/L	2.0	134	70	130	7.4	20	S
Carbon disulfide	12.3	ug/L	2.0	123	70	130	11	20	
Carbon tetrachloride	10.6	ug/L	2.0	106	70	130	9.5	20	
Chlorobenzene	8.80	ug/L	2.0	88	70	130	3.7	20	
Chlorodibromomethane	10.1	ug/L	2.0	101	70	130	11	20	
Chloroethane	10.9	ug/L	2.0	109	70	130	15	20	
Chloroform	10.5	ug/L	2.0	105	70	130	10	20	
Chloromethane	12.2	ug/L	2.0	122	70	130	4.0	20	
1,2-Dibromo-3-chloropropane	9.76	ug/L	2.0	98	70	130	25	20	R
1,2-Dibromoethane	11.8	ug/L	2.0	118	70	130	2.7	20	
Dibromomethane	8.96	ug/L	2.0	90	70	130	6.5	20	
1,2-Dichlorobenzene	9.20	ug/L	2.0	92	70	130	7.2	20	
1,4-Dichlorobenzene	9.52	ug/L	2.0	95	70	130	7.9	20	
trans-1,4-Dichloro-2-butene	8.96	ug/L	2.0	90	70	130	3.6	20	
Dichlorodifluoromethane	9.84	ug/L	2.0	98	70	130	3.2	20	
1,1-Dichloroethane	10.8	ug/L	2.0	108	70	130	12	20	

Qualifiers:

RL - Analyte reporting limit.

R - RPD exceeds advisory limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Client: Hydrometrics Inc

Project: 1273 COH

Report Date: 07/12/07

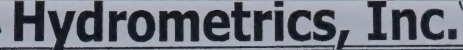
Work Order: H07070096

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: R38517		
Sample ID: H07070096-002AMSD	Sample Matrix Spike Duplicate		Run: 1SATURN_070711B				07/11/07 22:46		
1,2-Dichloroethane	11.6	ug/L	2.0	116	70	130	12	20	
1,1-Dichloroethene	9.92	ug/L	2.0	99	70	130	9.3	20	
cis-1,2-Dichloroethene	10.4	ug/L	2.0	104	70	130	13	20	
trans-1,2-Dichloroethene	10.5	ug/L	2.0	105	70	130	11	20	
1,2-Dichloropropane	9.44	ug/L	2.0	94	70	130	4.3	20	
cis-1,3-Dichloropropene	9.20	ug/L	2.0	92	70	130	5.4	20	
trans-1,3-Dichloropropene	9.84	ug/L	2.0	98	70	130	9.4	20	
Ethylbenzene	8.96	ug/L	2.0	90	70	130	2.7	20	
2-Hexanone	113	ug/L	40	113	70	130	5.8	20	
Iodomethane	9.12	ug/L	2.0	91	70	130	13	20	
Methyl ethyl ketone	119	ug/L	40	119	70	130	7.7	20	
Methyl isobutyl ketone	109	ug/L	40	109	70	130	6.1	20	
Methylene chloride	9.76	ug/L	2.0	98	70	130	7.7	20	
Styrene	8.56	ug/L	2.0	86	70	130	0.0	20	
1,1,1,2-Tetrachloroethane	9.68	ug/L	2.0	97	70	130	6.8	20	
1,1,2,2-Tetrachloroethane	8.88	ug/L	2.0	89	70	130	0.9	20	
Tetrachloroethene	9.20	ug/L	2.0	92	70	130	1.8	20	
Toluene	9.36	ug/L	2.0	94	70	130	5.3	20	
1,1,1-Trichloroethane	9.92	ug/L	2.0	99	70	130	5.8	20	
1,1,2-Trichloroethane	10.2	ug/L	2.0	102	70	130	6.5	20	
Trichloroethene	9.68	ug/L	2.0	97	70	130	6.0	20	
Trichlorofluoromethane	12.0	ug/L	2.0	120	70	130	1.3	20	
1,2,3-Trichloropropane	12.1	ug/L	2.0	121	70	130	0.0	20	
Vinyl acetate	10.8	ug/L	2.0	108	70	130	12	20	
Vinyl chloride	11.4	ug/L	2.0	114	70	130	2.1	20	
m+p-Xylenes	17.3	ug/L	2.0	86	70	130	4.7	20	
o-Xylene	8.72	ug/L	2.0	87	70	130	2.7	20	
Surr: 1,2-Dichloroethane-d4			2.0	78	70	130	0.0	20	
Surr: Dibromofluoromethane			2.0	103	70	130	0.0	20	
Surr: p-Bromofluorobenzene			2.0	99	70	130	0.0	20	
Surr: Toluene-d8			2.0	89	70	130	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



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[illegible]

Energy Laboratories Inc

Workorder Receipt Checklist



H07070096

Hydrometrics Inc

Login completed by: Roxanne L. Tubbs

Date and Time Received: 7/10/2007 4:15 PM

 Reviewed by: *Abb SOT*

Received by: abb

 Reviewed Date: *7/11/07*

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	1.5°C
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☒

Contact and Corrective Action Comments:

None



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[illegible]

8/14/07

SITE	CODE	DATE	TIME	BOTTLES / FREQ / ANALYSIS
POND	CHHL -			
	0708 -	8/14/07	14:15	2/HCL/VF/VOC
	100			

SPRINKLER	CHHL -	8/14/07	14:30	2/HCL/VF/VOC
	0708 -			
	101			

ANALYTICAL SUMMARY REPORT

August 17, 2007

Hydrometrics Inc
3020 Bozeman Ave.
Helena, MT 59601

Workorder No.: H07080148

Project Name: 1273 City of Helena SW Sampling GW Extract

Energy Laboratories Inc received the following 3 samples from Hydrometrics Inc on 8/14/2007 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H07080148-001	CHHL-0708-100	08/14/07 14:15	08/14/07	Aqueous	8260-Volatile Organic Comp, 40 CFR Part 258 App I
H07080148-002	CHHL-0708-101	08/14/07 14:30	08/14/07	Aqueous	Same As Above
H07080148-003	Trip Blank (TB071107)(jm)(b)-5	08/14/07 14:30	08/14/07	Trip Blank	Same As Above

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005
eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002
eli-f - Energy Laboratories, Inc. - Idaho Falls, ID, EPA # ID00942
eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006
eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945
eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012
eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

SUBCONTRACTING ANALYSIS

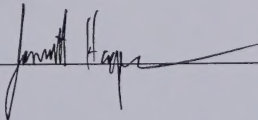
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Report Approved By: _____



NONE

LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena SW Sampling GW Extract
Lab ID: H07080148-001
Client Sample ID: CHHL-0708-100

Report Date: 08/15/07
Collection Date: 08/14/07 14:15
Date Received: 08/14/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	08/15/07 14:37 / jdh
Acrylonitrile	ND	ug/L		20		SW8260B	08/15/07 14:37 / jdh
Benzene	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
Bromochloromethane	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
Bromodichloromethane	0.75	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
Bromoform	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
Bromomethane	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
Carbon disulfide	ND	ug/L		1.0		SW8260B	08/15/07 14:37 / jdh
Carbon tetrachloride	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
Chlorobenzene	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
Chlorodibromomethane	0.30	ug/L	J	0.50		SW8260B	08/15/07 14:37 / jdh
Chloroethane	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
Chloroform	2.7	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
Chloromethane	ND	ug/L		1.0		SW8260B	08/15/07 14:37 / jdh
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	08/15/07 14:37 / jdh
1,2-Dibromoethane	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
Dibromomethane	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
1,2-Dichlorobenzene	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
1,4-Dichlorobenzene	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
trans-1,4-Dichloro-2-butene	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	08/15/07 14:37 / jdh
1,1-Dichloroethane	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
1,2-Dichloroethane	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
1,1-Dichloroethene	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
cis-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
trans-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
1,2-Dichloropropane	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
cis-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
trans-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
Ethylbenzene	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
2-Hexanone	ND	ug/L		20		SW8260B	08/15/07 14:37 / jdh
Iodomethane	ND	ug/L		1.0		SW8260B	08/15/07 14:37 / jdh
Methyl ethyl ketone	ND	ug/L		20		SW8260B	08/15/07 14:37 / jdh
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	08/15/07 14:37 / jdh
Methylene chloride	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
Styrene	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
1,1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
Tetrachloroethene	0.31	ug/L	J	0.50		SW8260B	08/15/07 14:37 / jdh
Toluene	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
1,1,1-Trichloroethane	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh
1,1,2-Trichloroethane	ND	ug/L		0.50		SW8260B	08/15/07 14:37 / jdh

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

J - Estimated value. The analyte was present but less than the reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena SW Sampling GW Extract
Lab ID: H07080148-001
Client Sample ID: CHHL-0708-100

Report Date: 08/15/07
Collection Date: 08/14/07 14:15
DateReceived: 08/14/07
Matrix: Aqueous

[illegible]

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena SW Sampling GW Extract
Lab ID: H07080148-002
Client Sample ID: CHHL-0708-101

Report Date: 08/15/07
Collection Date: 08/14/07 14:30
Date Received: 08/14/07
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	08/15/07 15:08 / jdh
Acrylonitrile	ND	ug/L		20		SW8260B	08/15/07 15:08 / jdh
Benzene	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
Bromochloromethane	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
Bromodichloromethane	0.21	ug/L	J	0.50		SW8260B	08/15/07 15:08 / jdh
Bromoform	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
Bromomethane	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
Carbon disulfide	ND	ug/L		1.0		SW8260B	08/15/07 15:08 / jdh
Carbon tetrachloride	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
Chlorobenzene	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
Chlorodibromomethane	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
Chloroethane	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
Chloroform	0.60	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
Chloromethane	ND	ug/L		1.0		SW8260B	08/15/07 15:08 / jdh
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	08/15/07 15:08 / jdh
1,2-Dibromoethane	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
Dibromomethane	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
1,2-Dichlorobenzene	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
1,4-Dichlorobenzene	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
trans-1,4-Dichloro-2-butene	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	08/15/07 15:08 / jdh
1,1-Dichloroethane	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
1,2-Dichloroethane	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
1,1-Dichloroethene	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
cis-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
trans-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
1,2-Dichloropropane	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
cis-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
trans-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
Ethylbenzene	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
2-Hexanone	ND	ug/L		20		SW8260B	08/15/07 15:08 / jdh
Iodomethane	ND	ug/L		1.0		SW8260B	08/15/07 15:08 / jdh
Methyl ethyl ketone	ND	ug/L		20		SW8260B	08/15/07 15:08 / jdh
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	08/15/07 15:08 / jdh
Methylene chloride	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
Styrene	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
Tetrachloroethene	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
Toluene	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
1,1,1-Trichloroethane	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh
1,1,2-Trichloroethane	ND	ug/L		0.50		SW8260B	08/15/07 15:08 / jdh

Report RL - Analyte reporting limit.

MCL - Maximum contaminant level.

Definitions: QCL - Quality control limit.

ND - Not detected at the reporting limit.

J - Estimated value. The analyte was present but less than the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena SW Sampling GW Extract
Lab ID: H07080148-002
Client Sample ID: CHHL-0708-101

Report Date: 08/15/07
Collection Date: 08/14/07 14:30
DateReceived: 08/14/07
Matrix: Aqueous

[illegible]

Report	RL - Analyte reporting limit.
Definitions:	QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena SW Sampling GW Extract
Lab ID: H07080148-003
Client Sample ID: Trip Blank (TB071107)(jm)(b)-5

Report Date: 08/15/07
Collection Date: 08/14/07 14:30
Date Received: 08/14/07
Matrix: Trip Blank

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	08/15/07 13:34 / jdh
Acrylonitrile	ND	ug/L		20		SW8260B	08/15/07 13:34 / jdh
Benzene	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
Bromochloromethane	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
Bromodichloromethane	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
Bromoform	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
Bromomethane	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
Carbon disulfide	ND	ug/L		1.0		SW8260B	08/15/07 13:34 / jdh
Carbon tetrachloride	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
Chlorobenzene	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
Chlorodibromomethane	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
Chloroethane	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
Chloroform	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
Chloromethane	ND	ug/L		1.0		SW8260B	08/15/07 13:34 / jdh
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	08/15/07 13:34 / jdh
1,2-Dibromoethane	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
Dibromomethane	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
1,2-Dichlorobenzene	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
1,4-Dichlorobenzene	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
trans-1,4-Dichloro-2-butene	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	08/15/07 13:34 / jdh
1,1-Dichloroethane	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
1,2-Dichloroethane	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
1,1-Dichloroethene	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
cis-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
trans-1,2-Dichloroethene	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
1,2-Dichloropropane	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
cis-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
trans-1,3-Dichloropropene	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
Ethylbenzene	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
2-Hexanone	ND	ug/L		20		SW8260B	08/15/07 13:34 / jdh
Iodomethane	ND	ug/L		1.0		SW8260B	08/15/07 13:34 / jdh
Methyl ethyl ketone	ND	ug/L		20		SW8260B	08/15/07 13:34 / jdh
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	08/15/07 13:34 / jdh
Methylene chloride	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
Styrene	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
1,1,1,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
1,1,2,2-Tetrachloroethane	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
Tetrachloroethene	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
Toluene	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
1,1,1-Trichloroethane	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
1,1,2-Trichloroethane	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
 ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Client: Hydrometrics Inc
Project: 1273 City of Helena SW Sampling GW Extract
Lab ID: H07080148-003
Client Sample ID: Trip Blank (TB071107)(jm)(b)-5

Report Date: 08/15/07
Collection Date: 08/14/07 14:30
DateReceived: 08/14/07
Matrix: Trip Blank

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Trichloroethene	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
Trichlorofluoromethane	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
1,2,3-Trichloropropane	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
Vinyl acetate	ND	ug/L		1.0		SW8260B	08/15/07 13:34 / jdh
Vinyl chloride	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
m+p-Xylenes	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
o-Xylene	ND	ug/L		0.50		SW8260B	08/15/07 13:34 / jdh
Surr: 1,2-Dichloroethane-d4	111	%REC		70-130		SW8260B	08/15/07 13:34 / jdh
Surr: Dibromofluoromethane	88.0	%REC		70-130		SW8260B	08/15/07 13:34 / jdh
Surr: p-Bromofluorobenzene	109	%REC		70-130		SW8260B	08/15/07 13:34 / jdh
Surr: Toluene-d8	91.0	%REC		70-130		SW8260B	08/15/07 13:34 / jdh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Hydrometrics Inc

Report Date: 08/15/07

Project: 1273 City of Helena SW Sampling GW-Extract

Work Order: H07080148

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Analytical Run: 1SATURN_070815A		
Sample ID: CCV081507A	Continuing Calibration Verification Standard								08/15/07 10:57
Acetone	38.1	ug/L	20	76	70	130			
Acrylonitrile	48.8	ug/L	20	98	70	130			
Benzene	4.80	ug/L	1.0	96	70	130			
Bromochloromethane	4.72	ug/L	1.0	94	70	130			
Bromodichloromethane	5.12	ug/L	1.0	102	70	130			
Bromoform	5.00	ug/L	1.0	100	70	130			
Bromomethane	4.96	ug/L	1.0	99	70	130			
Carbon disulfide	4.36	ug/L	1.0	87	70	130			
Carbon tetrachloride	4.52	ug/L	1.0	90	70	130			
Chlorobenzene	4.80	ug/L	1.0	96	70	130			
Chlorodibromomethane	5.24	ug/L	1.0	105	70	130			
Chloroethane	4.32	ug/L	1.0	86	70	130			
Chloroform	4.36	ug/L	1.0	87	80	120			
Chloromethane	5.04	ug/L	1.0	101	70	130			
1,2-Dibromo-3-chloropropane	4.52	ug/L	1.0	90	70	130			
1,2-Dibromoethane	6.12	ug/L	1.0	122	70	130			
Dibromomethane	5.00	ug/L	1.0	100	70	130			
1,2-Dichlorobenzene	5.00	ug/L	1.0	100	70	130			
1,4-Dichlorobenzene	5.08	ug/L	1.0	102	70	130			
trans-1,4-Dichloro-2-butene	5.08	ug/L	1.0	102	70	130			
Dichlorodifluoromethane	4.56	ug/L	1.0	91	70	130			
1,1-Dichloroethane	4.72	ug/L	1.0	94	70	130			
1,2-Dichloroethane	4.84	ug/L	1.0	97	70	130			
1,1-Dichloroethene	4.56	ug/L	1.0	91	80	120			
cis-1,2-Dichloroethene	4.56	ug/L	1.0	91	70	130			
trans-1,2-Dichloroethene	4.72	ug/L	1.0	94	70	130			
1,2-Dichloropropane	5.04	ug/L	1.0	101	80	120			
cis-1,3-Dichloropropene	4.72	ug/L	1.0	94	70	130			
trans-1,3-Dichloropropene	4.76	ug/L	1.0	95	70	130			
Ethylbenzene	4.96	ug/L	1.0	99	80	120			
2-Hexanone	47.6	ug/L	20	95	70	130			
Iodomethane	4.32	ug/L	1.0	86	70	130			
Methyl ethyl ketone	38.9	ug/L	20	78	70	130			
Methyl isobutyl ketone	46.4	ug/L	20	93	70	130			
Methylene chloride	4.40	ug/L	1.0	88	70	130			
Styrene	4.88	ug/L	1.0	98	70	130			
1,1,1,2-Tetrachloroethane	4.84	ug/L	1.0	97	70	130			
1,1,2,2-Tetrachloroethane	4.92	ug/L	1.0	98	70	130			
Tetrachloroethene	5.28	ug/L	1.0	106	70	130			
Toluene	4.80	ug/L	1.0	96	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Hydrometrics Inc

Report Date: 08/15/07

Project: 1273 City of Helena SW Sampling GW Extract

Work Order: H07080148

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Analytical Run: 1SATURN_070815A		
Sample ID: CCV081507A	Continuing Calibration Verification Standard							08/15/07 10:57	
1,1,1-Trichloroethane	4.48	ug/L	1.0	90	70	130			
1,1,2-Trichloroethane	4.80	ug/L	1.0	96	70	130			
Trichloroethene	5.12	ug/L	1.0	102	70	130			
Trichlorofluoromethane	5.32	ug/L	1.0	106	70	130			
1,2,3-Trichloropropane	5.52	ug/L	1.0	110	70	130			
Vinyl acetate	3.77	ug/L	1.0	75	70	130			
Vinyl chloride	4.92	ug/L	1.0	98	80	120			
m+p-Xylenes	9.60	ug/L	1.0	96	70	130			
o-Xylene	4.88	ug/L	1.0	98	70	130			
Surr: 1,2-Dichloroethane-d4			1.0	109	70	130			
Surr: Dibromofluoromethane			1.0	84	70	130			
Surr: p-Bromofluorobenzene			1.0	106	70	130			
Surr: Toluene-d8			1.0	100	70	130			
Method: SW8260B							Batch: R39382		
Sample ID: LCS081507A	Laboratory Control Sample							Run: 1SATURN_070815A	
Acetone	50.8	ug/L	20	102	70	130		08/15/07 11:43	
Acrylonitrile	41.2	ug/L	20	82	70	130			
Benzene	4.84	ug/L	1.0	97	70	130			
Bromochloromethane	4.80	ug/L	1.0	96	70	130			
Bromodichloromethane	5.12	ug/L	1.0	102	70	130			
Bromoform	4.88	ug/L	1.0	98	70	130			
Bromomethane	5.00	ug/L	1.0	100	70	130			
Carbon disulfide	5.16	ug/L	1.0	103	70	130			
Carbon tetrachloride	4.60	ug/L	1.0	92	70	130			
Chlorobenzene	4.84	ug/L	1.0	97	70	130			
Chlorodibromomethane	5.44	ug/L	1.0	109	70	130			
Chloroethane	4.32	ug/L	1.0	86	70	130			
Chloroform	4.48	ug/L	1.0	90	70	130			
Chloromethane	5.04	ug/L	1.0	101	70	130			
1,2-Dibromo-3-chloropropane	4.20	ug/L	1.0	84	70	130			
1,2-Dibromoethane	6.20	ug/L	1.0	124	70	130			
Dibromomethane	4.96	ug/L	1.0	99	70	130			
1,2-Dichlorobenzene	4.96	ug/L	1.0	99	70	130			
1,4-Dichlorobenzene	5.32	ug/L	1.0	106	70	130			
trans-1,4-Dichloro-2-butene	5.16	ug/L	1.0	103	70	130			
Dichlorodifluoromethane	4.32	ug/L	1.0	86	70	130			
1,1-Dichloroethane	4.80	ug/L	1.0	96	70	130			
1,2-Dichloroethane	4.96	ug/L	1.0	99	70	130			
1,1-Dichloroethene	4.56	ug/L	1.0	91	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Hydrometrics Inc

Report Date: 08/15/07

Project: 1273 City of Helena SW Sampling GW Extract

Work Order: H07080148

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B									Batch: R39382
Sample ID: LCS081507A	Laboratory Control Sample				Run: 1SATURN_070815A			08/15/07 11:43	
cis-1,2-Dichloroethene	4.60	ug/L	1.0	92	70	130			
trans-1,2-Dichloroethene	4.80	ug/L	1.0	96	70	130			
1,2-Dichloropropane	5.52	ug/L	1.0	110	70	130			
cis-1,3-Dichloropropene	5.08	ug/L	1.0	102	70	130			
trans-1,3-Dichloropropene	5.60	ug/L	1.0	112	70	130			
Ethylbenzene	5.20	ug/L	1.0	104	70	130			
2-Hexanone	49.6	ug/L	20	99	70	130			
Iodomethane	4.56	ug/L	1.0	91	70	130			
Methyl ethyl ketone	44.4	ug/L	20	89	70	130			
Methyl isobutyl ketone	50.4	ug/L	20	101	70	130			
Methylene chloride	4.56	ug/L	1.0	91	70	130			
Styrene	5.00	ug/L	1.0	100	70	130			
1,1,1,2-Tetrachloroethane	4.80	ug/L	1.0	96	70	130			
1,1,2,2-Tetrachloroethane	5.08	ug/L	1.0	102	70	130			
Tetrachloroethene	5.60	ug/L	1.0	112	70	130			
Toluene	5.12	ug/L	1.0	102	70	130			
1,1,1-Trichloroethane	4.56	ug/L	1.0	91	70	130			
1,1,2-Trichloroethane	4.84	ug/L	1.0	97	70	130			
Trichloroethene	5.24	ug/L	1.0	105	70	130			
Trichlorofluoromethane	5.00	ug/L	1.0	100	70	130			
1,2,3-Trichloropropane	5.64	ug/L	1.0	113	70	130			
Vinyl acetate	4.12	ug/L	1.0	82	70	130			
Vinyl chloride	4.84	ug/L	1.0	97	70	130			
m+p-Xylenes	10.2	ug/L	1.0	102	70	130			
o-Xylene	5.00	ug/L	1.0	100	70	130			
Surr: 1,2-Dichloroethane-d4			1.0	104	70	130			
Surr: Dibromofluoromethane			1.0	88	70	130			
Surr: p-Bromofluorobenzene			1.0	106	70	130			
Surr: Toluene-d8			1.0	101	70	130			
Sample ID: MBLK081507A	Method Blank				Run: 1SATURN_070815A			08/15/07 13:02	
Acetone	ND	ug/L	20						
Acrylonitrile	ND	ug/L	20						
Benzene	ND	ug/L	0.50						
Bromochloromethane	ND	ug/L	0.50						
Bromodichloromethane	ND	ug/L	0.50						
Bromoform	ND	ug/L	0.50						
Bromomethane	ND	ug/L	0.50						
Carbon disulfide	ND	ug/L	1.0						
Carbon tetrachloride	ND	ug/L	0.50						
Chlorobenzene	ND	ug/L	0.50						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Hydrometrics Inc

Report Date: 08/15/07

Project: 1273 City of Helena SW Sampling GW Extract

Work Order: H07080148

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B									Batch: R39382
Sample ID: MBLK081507A	Method Blank					Run: 1SATURN_070815A			08/15/07 13:02
Chlorodibromomethane	ND	ug/L	0.50						
Chloroethane	ND	ug/L	0.50						
Chloroform	ND	ug/L	0.50						
Chloromethane	ND	ug/L	1.0						
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0						
1,2-Dibromoethane	ND	ug/L	0.50						
Dibromomethane	ND	ug/L	0.50						
1,2-Dichlorobenzene	ND	ug/L	0.50						
1,4-Dichlorobenzene	ND	ug/L	0.50						
trans-1,4-Dichloro-2-butene	ND	ug/L	0.50						
Dichlorodifluoromethane	ND	ug/L	1.0						
1,1-Dichloroethane	ND	ug/L	0.50						
1,2-Dichloroethane	ND	ug/L	0.50						
1,1-Dichloroethene	ND	ug/L	0.50						
cis-1,2-Dichloroethene	ND	ug/L	0.50						
trans-1,2-Dichloroethene	ND	ug/L	0.50						
1,2-Dichloropropane	ND	ug/L	0.50						
cis-1,3-Dichloropropene	ND	ug/L	0.50						
trans-1,3-Dichloropropene	ND	ug/L	0.50						
Ethylbenzene	ND	ug/L	0.50						
2-Hexanone	ND	ug/L	20						
Iodomethane	ND	ug/L	1.0						
Methyl ethyl ketone	ND	ug/L	20						
Methyl isobutyl ketone	ND	ug/L	20						
Methylene chloride	ND	ug/L	0.50						
Styrene	ND	ug/L	0.50						
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50						
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50						
Tetrachloroethene	ND	ug/L	0.50						
Toluene	ND	ug/L	0.50						
1,1,1-Trichloroethane	ND	ug/L	0.50						
1,1,2-Trichloroethane	ND	ug/L	0.50						
Trichloroethene	ND	ug/L	0.50						
Trichlorofluoromethane	ND	ug/L	0.50						
1,2,3-Trichloropropane	ND	ug/L	0.50						
Vinyl acetate	ND	ug/L	1.0						
Vinyl chloride	ND	ug/L	0.50						
m+p-Xylenes	ND	ug/L	0.50						
o-Xylene	ND	ug/L	0.50						
Surr: 1,2-Dichloroethane-d4			1.0	110	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Hydrometrics Inc

Report Date: 08/15/07

Project: 1273 City of Helena SW Sampling GW Extract

Work Order: H07080148

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B									Batch: R39382
Sample ID: MBLK081507A	Method Blank					Run: 1SATURN_070815A			08/15/07 13:02
Surr: Dibromofluoromethane			1.0	89	70	130			
Surr: p-Bromofluorobenzene			1.0	104	70	130			
Surr: Toluene-d8			1.0	97	70	130			
Sample ID: H07080148-002AMS	Sample Matrix Spike					Run: 1SATURN_070815A			08/15/07 17:16
Acetone	114	ug/L	40	114	70	130			
Acrylonitrile	89.6	ug/L	40	90	70	130			
Benzene	7.75	ug/L	2.0	78	70	130			
Bromochloromethane	9.52	ug/L	2.0	95	70	130			
Bromodichloromethane	9.12	ug/L	2.0	89	70	130			
Bromoform	10.1	ug/L	2.0	101	70	130			
Bromomethane	8.40	ug/L	2.0	84	70	130			
Carbon disulfide	10.6	ug/L	2.0	106	70	130			
Carbon tetrachloride	9.20	ug/L	2.0	92	70	130			
Chlorobenzene	9.44	ug/L	2.0	94	70	130			
Chlorodibromomethane	9.92	ug/L	2.0	99	70	130			
Chloroethane	8.96	ug/L	2.0	90	70	130			
Chloroform	9.60	ug/L	2.0	90	70	130			
Chloromethane	8.96	ug/L	2.0	90	70	130			
1,2-Dibromo-3-chloropropane	10.0	ug/L	2.0	100	70	130			
1,2-Dibromoethane	11.8	ug/L	2.0	118	70	130			
Dibromomethane	8.96	ug/L	2.0	90	70	130			
1,2-Dichlorobenzene	10.4	ug/L	2.0	104	70	130			
1,4-Dichlorobenzene	10.1	ug/L	2.0	101	70	130			
trans-1,4-Dichloro-2-butene	9.12	ug/L	2.0	91	70	130			
Dichlorodifluoromethane	7.42	ug/L	2.0	74	70	130			
1,1-Dichloroethane	8.96	ug/L	2.0	90	70	130			
1,2-Dichloroethane	10.1	ug/L	2.0	101	70	130			
1,1-Dichloroethene	8.80	ug/L	2.0	88	70	130			
cis-1,2-Dichloroethene	8.72	ug/L	2.0	87	70	130			
trans-1,2-Dichloroethene	9.36	ug/L	2.0	94	70	130			
1,2-Dichloropropane	10.9	ug/L	2.0	109	70	130			
cis-1,3-Dichloropropene	10.4	ug/L	2.0	104	70	130			
trans-1,3-Dichloropropene	11.8	ug/L	2.0	118	70	130			
Ethylbenzene	9.68	ug/L	2.0	97	70	130			
2-Hexanone	106	ug/L	40	106	70	130			
Iodomethane	9.76	ug/L	2.0	98	70	130			
Methyl ethyl ketone	99.2	ug/L	40	99	70	130			
Methyl isobutyl ketone	101	ug/L	40	101	70	130			
Methylene chloride	8.64	ug/L	2.0	86	70	130			
Styrene	9.12	ug/L	2.0	91	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Hydrometrics Inc

Report Date: 08/15/07

Project: 1273 City of Helena SW Sampling GW Extract

Work Order: H07080148

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B							Batch: R39382		
Sample ID: H07080148-002AMS	Sample Matrix Spike		Run: 1SATURN_070815A				08/15/07 17:16		
1,1,1,2-Tetrachloroethane	9.68	ug/L	2.0	97	70	130			
1,1,2,2-Tetrachloroethane	10.1	ug/L	2.0	101	70	130			
Tetrachloroethene	9.76	ug/L	2.0	98	70	130			
Toluene	9.76	ug/L	2.0	98	70	130			
1,1,1-Trichloroethane	9.20	ug/L	2.0	92	70	130			
1,1,2-Trichloroethane	10.2	ug/L	2.0	102	70	130			
Trichloroethene	9.68	ug/L	2.0	97	70	130			
Trichlorofluoromethane	9.76	ug/L	2.0	98	70	130			
1,2,3-Trichloropropane	9.60	ug/L	2.0	96	70	130			
Vinyl acetate	9.12	ug/L	2.0	91	70	130			
Vinyl chloride	9.12	ug/L	2.0	91	70	130			
m+p-Xylenes	17.8	ug/L	2.0	89	70	130			
o-Xylene	9.60	ug/L	2.0	96	70	130			
Surr: 1,2-Dichloroethane-d4			2.0	106	70	130			
Surr: Dibromofluoromethane			2.0	95	70	130			
Surr: p-Bromofluorobenzene			2.0	101	70	130			
Surr: Toluene-d8			2.0	96	70	130			
Sample ID: H07080148-002AMSD	Sample Matrix Spike Duplicate		Run: 1SATURN_070815A				08/15/07 17:51		
Acetone	109	ug/L	40	109	70	130	4.3	20	
Acrylonitrile	90.4	ug/L	40	90	70	130	0.9	20	
Benzene	7.77	ug/L	2.0	78	70	130	0.2	20	
Bromochloromethane	9.20	ug/L	2.0	92	70	130	3.4	20	
Bromodichloromethane	9.12	ug/L	2.0	89	70	130	0.0	20	
Bromoform	9.44	ug/L	2.0	94	70	130	6.6	20	
Bromomethane	8.80	ug/L	2.0	88	70	130	4.7	20	
Carbon disulfide	10.4	ug/L	2.0	104	70	130	2.3	20	
Carbon tetrachloride	9.20	ug/L	2.0	92	70	130	0.0	20	
Chlorobenzene	9.12	ug/L	2.0	91	70	130	3.4	20	
Chlorodibromomethane	9.04	ug/L	2.0	90	70	130	9.3	20	
Chloroethane	9.04	ug/L	2.0	90	70	130	0.9	20	
Chloroform	9.60	ug/L	2.0	90	70	130	0.0	20	
Chloromethane	9.12	ug/L	2.0	91	70	130	1.8	20	
1,2-Dibromo-3-chloropropane	8.80	ug/L	2.0	88	70	130	13	20	
1,2-Dibromoethane	10.8	ug/L	2.0	108	70	130	9.2	20	
Dibromomethane	8.72	ug/L	2.0	87	70	130	2.7	20	
1,2-Dichlorobenzene	10.1	ug/L	2.0	101	70	130	3.1	20	
1,4-Dichlorobenzene	10.0	ug/L	2.0	100	70	130	0.8	20	
trans-1,4-Dichloro-2-butene	9.28	ug/L	2.0	93	70	130	1.7	20	
Dichlorodifluoromethane	7.88	ug/L	2.0	79	70	130	6.1	20	
1,1-Dichloroethane	9.36	ug/L	2.0	94	70	130	4.4	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Client: Hydrometrics Inc

Report Date: 08/15/07

Project: 1273 City of Helena SW Sampling GW Extract

Work Order: H07080148

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B									Batch: R39382
Sample ID: H07080148-002AMSD	Sample Matrix Spike Duplicate		Run: 1SATURN_070815A					08/15/07 17:51	
1,2-Dichloroethane	10.1	ug/L	2.0	101	70	130	0.0	20	
1,1-Dichloroethene	8.80	ug/L	2.0	88	70	130	0.0	20	
cis-1,2-Dichloroethene	8.72	ug/L	2.0	87	70	130	0.0	20	
trans-1,2-Dichloroethene	9.68	ug/L	2.0	97	70	130	3.4	20	
1,2-Dichloropropane	10.6	ug/L	2.0	106	70	130	3.0	20	
cis-1,3-Dichloropropene	10.2	ug/L	2.0	102	70	130	2.3	20	
trans-1,3-Dichloropropene	11.3	ug/L	2.0	113	70	130	4.2	20	
Ethylbenzene	9.20	ug/L	2.0	92	70	130	5.1	20	
2-Hexanone	109	ug/L	40	109	70	130	3.0	20	
Iodomethane	9.44	ug/L	2.0	94	70	130	3.3	20	
Methyl ethyl ketone	95.2	ug/L	40	95	70	130	4.1	20	
Methyl isobutyl ketone	112	ug/L	40	112	70	130	11	20	
Methylene chloride	7.98	ug/L	2.0	80	70	130	7.9	20	
Styrene	8.96	ug/L	2.0	90	70	130	1.8	20	
1,1,1,2-Tetrachloroethane	9.20	ug/L	2.0	92	70	130	5.1	20	
1,1,2,2-Tetrachloroethane	9.60	ug/L	2.0	96	70	130	4.9	20	
Tetrachloroethene	9.12	ug/L	2.0	91	70	130	6.8	20	
Toluene	9.92	ug/L	2.0	99	70	130	1.6	20	
1,1,1-Trichloroethane	9.76	ug/L	2.0	98	70	130	5.9	20	
1,1,2-Trichloroethane	10.6	ug/L	2.0	106	70	130	3.1	20	
Trichloroethene	9.60	ug/L	2.0	96	70	130	0.8	20	
Trichlorofluoromethane	9.84	ug/L	2.0	98	70	130	0.8	20	
1,2,3-Trichloropropane	8.96	ug/L	2.0	90	70	130	6.9	20	
Vinyl acetate	9.44	ug/L	2.0	94	70	130	3.4	20	
Vinyl chloride	9.04	ug/L	2.0	90	70	130	0.9	20	
m+p-Xylenes	17.3	ug/L	2.0	86	70	130	3.2	20	
o-Xylene	9.36	ug/L	2.0	94	70	130	2.5	20	
Surr: 1,2-Dichloroethane-d4			2.0	112	70	130	0.0	20	
Surr: Dibromofluoromethane			2.0	95	70	130	0.0	20	
Surr: p-Bromofluorobenzene			2.0	104	70	130	0.0	20	
Surr: Toluene-d8			2.0	99	70	130	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

Energy Laboratories Inc

Workorder Receipt Checklist



Hydrometrics Inc

H07080148

Login completed by: Roxanne L. Tubbs

Date and Time Received: 8/14/2007 3:03 PM

Reviewed by: *RLT*

Received by: rlt

Reviewed Date: 8/15/07

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed w hen relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees w ith sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received w ithin holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	14.0°C From Field
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☒

Contact and Corrective Action Comments:

None



2727 Airport Road • Helena, Montana 59601 • (406) 443-4150

[illegible]

HFORM-1-5/99

Return results & electronic copy to:
Computer Dept. at address at top of page

Split Samples:

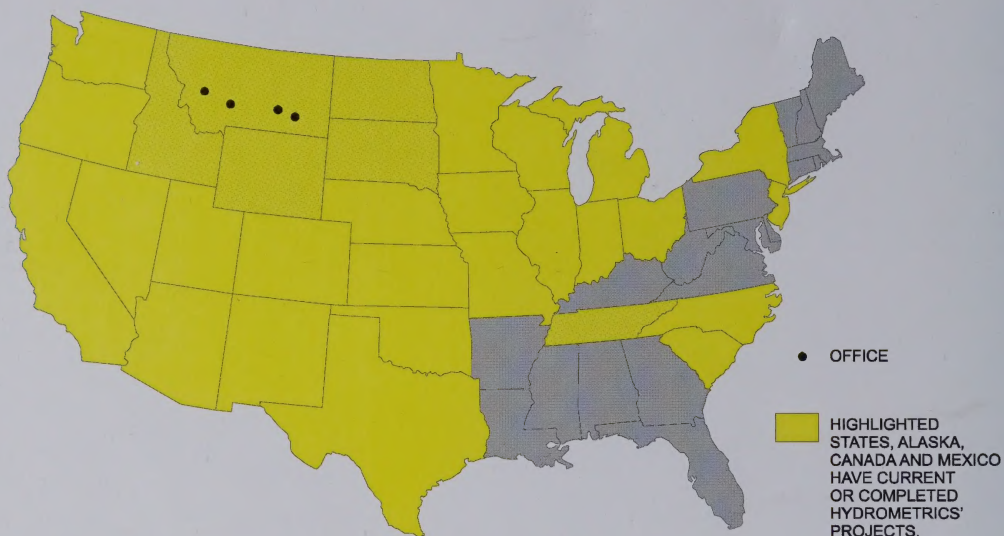
☐ Accepted ☐ Declined

Signature _____



2727 Airport Road • Helena, Montana 59601 • (406) 443-4150

[illegible]



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Missoula, MT 59801
Phone: (406) 721-8243
FAX: (406) 542-2619

COLSTRIP
Phone: (406) 656-8305
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